

THE  
**MEDICAL REPOSITORY.**

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VOL. VIII.

NEW SERIES.

No. III.

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**ORIGINAL ESSAYS.**

*Remarks on the use of the Sanguinaria Canadensis, in Cynanche Trachealis, or Croup.—By Dr. John Andrews, of Wallingford, Con.*

I HAVE been informed by the then practising physicians, Dr. Jared Potter and my father, and from various other sources, that Croup appeared as an endemic in the town of Wallingford, where I reside, in the year 1775. An old living chronicle, my neighbour, has lately given me the names of the families, who buried sixteen children, who died of the complaint in that year. It is not believed a single patient recovered who had the disease, as Dr. Potter and my father, both held it to be an incurable disease, until they became acquainted with the mode of treatment which I am about to describe. In the year 1804 Croup was endemic in this town again. The different mode of treatment which was adopted at that time, and the success which has attended it, prompted me to write the following remarks upon the subject some years since.

There are two species of Croup, which proceeding from different causes, require a materially different course of reme-

dies\*. The most common form of the complaint is that which arises from exposure to cold, attended with a collection of phlegm within the trachea, and inflammation of the parts adjacent, which apparently constitute the disease in its first stages; but if suffered to progress in its ordinary course, a preternatural membrane is formed, which obstructing the respiration eventually destroys the life of the patient.† To prevent the formation of this membrane, or to evacuate it when partially formed, is, perhaps, the sole province of art in this species of Croup. The other form of the disease, is that which proceeds from malignant sore throat, or canker, extending its effects within the trachea.

Both forms of the complaint are sometimes endemical, but in general, Croup occurs but seldom, and a physician of extensive practice will not see many cases in the course of a year. As the inflammatory Croup is much the most frequent disease, and the remedial process more sure and certain in its operation, I shall confine my observations, to this particular species.

Dr. Cullen says, "This disease seldom attacks infants till after they are weaned; after this period, the younger they are, the more they are liable to it.‡ It attacks children of the midland countries, as well as those who live near the sea. It does not appear to be contagious, and its attacks are frequently repeated in the same child. It is often manifestly the effect of cold applied to the body; and therefore appears most frequently in the winter and spring seasons." He de-

\* The late Dr. Samuel Bard of New-York has given the history of two epidemics of Croup, (in one of which the disease was inflammatory; the other accompanied with Cynanche Maligna) in a Pamphlet published by him in early life,

† The existence of this membrane has been so often proved by dissections, that I presume the fact will not, at this time, be denied.

‡ Nursing infants often have a complaint resembling Croup. The respiration is very similar, the difference appears to be, that inflammation does not attend it.

scribes the symptoms as follows; "a hoarseness with some shrillness, and ringing sound, both in speaking and coughing, as if the noise came from a brazen tube. The cough which attends it, is commonly dry; and if any thing be spit up, it is a matter of a purulent appearance, and sometimes films resembling portions of a membrane."

To these I will beg leave to subjoin, that the exacerbations are greatly increased early in the morning, and in the evening; that even when the child is in a measure at ease, a fit of coughing or crying always brings on the difficulty of breathing, and the patient can seldom speak or cry aloud, until there is an abatement of the symptoms. The disease often attacks suddenly and with great violence, at a time when the patient is apparently in perfect health; and although the difficulty of breathing is in all cases increased or diminished at times, cases differ very much in this respect. In some, the patient will have extreme difficulty of breathing in the morning and in the evening, and, perhaps, occasionally slighter paroxysms in the course of the day; and in the intervals will play about, and even run out of doors, without the parents apprehending any danger, until the final catastrophe approaches, when all remedies are equally unavailing.

Dr. Cullen observes, "there have been many dissections made of infants who have died from this disease; and almost constantly there has appeared a preternatural membrane lining the whole internal surface of the upper part of the trachea, and extending in the same manner downwards into some of its ramifications." Townsend calls this "the fatal membrane." Fatal indeed! for after it is fully formed and attached, I believe it will seldom be found, that any remedy is sufficient to remove it. For a number of years, after I commenced the practice of physic, all the cases of croup which fell under my observation, proved fatal. The course of practice pursued, was to give antimonial emetics, calomel



in repeated doses, with a free use of seneka and blisters, and sometimes the warm bath. In the year 1804, when croup became endemic in Wallingford, the two first children seized belonged to one family—both died. Not long after, a child of one of my neighbours was seized with the complaint: I was called, gave an antimonial emetic, left some doses of calomel, and ordered the free use of seneka. The child was relieved, and appeared likely to recover, until the next day, when there was an increase of serious symptoms:\* counsel was called; further emetics, the warm bath, blisters, and the whole course prescribed, was vigorously pursued, but the child died on the fourth day. The night previous to the death of this child, another in the same family was violently seized with the same complaint. I adopted Dr. Home's plan, bled the child and gave an emetic. In the morning counsel was called, and we put the child into a sheep skin in which she was kept eight hours, and pursued the usual practice in other respects, except that we repeated the emetics every three or four hours. This course appeared to prevent the formation of the membrane, and the child recovered.

While this case yet remained in doubt, a child of my own was taken; the same practice was pursued, with like success. In addition to bleeding at the arm, this child bled repeatedly and largely at the nose. Shortly after this, Dr. Hoadly, a neighbouring physician and friend of my father, called to see him. In conversing upon the disease with which my child had been affected, he told me that the *Sanguinaria Canadensis* was a sovereign remedy for it. He had frequently known it give immediate relief, and his impression was, that it would

\* It was frequently the case, under the old plan of treatment, after an emetic, that there would be almost an entire relief of the symptoms, for a number of hours; but the physician by placing his ear near the patient, would discover a slight whistling sound; this symptom always denoted a return of the complaint, and when it did return, it was generally found that the disease had gained strength during the remission.



answer the purpose in all stages of the complaint, whether the membrane was formed or not.

I determined to give his medicine a trial, and as the disease was then spreading, a fair opportunity presented to make the experiment. In two or three of the first cases, it appeared fully to answer the purpose without any aid from other remedies. Afterwards cases occurred in which it would not answer *per se*. In one case in particular, I gave it without any benefit; repeated it, but obtained no relief; bled the child; this alleviated the distress, but still the respiration remained tight; repeated the blood-root again, with seneka and the usual remedies; the patient's skin was dry; (I had observed in many cases, where there was a free perspiration that the breathing was very different from, and much more easy, than when the skin was dry: whenever the skin was moist, instead of the tight whistling sound, the respiration became loud, with a rattling, as though there was a collection of loose phlegm within the trachea.) I then adopted measures to produce a free perspiration, and no sooner was this effected, than the loud rattling breathing came on; I then repeated the emetic of blood-root, with the desired success: large quantities of viscid phlegm, with bloody matter, and films resembling portions of membrane, were thrown up, and the patient recovered.\*

I afterwards found frequent instances, where vomiting with Sanguinaria answered no good purpose, unless a perspiration was first obtained; and in some cases, it appeared to be necessary to reduce the action by bleeding, before a salutary perspiration could be procured: indeed bleeding seldom fails to relieve all the symptoms for a number of hours, although the complaint very generally returns.† Where the breath-

\* I have seen this appearance of films in various other instances in some of which the patients recovered.

† Dr. J. V. Kirtland, of Darham, related the following case to me a few days since. In 1821, he was called to a child apparently in the act of suffoca-

ing is tight, and the passage appears very much straightened, Sanguinaria rarely gives much relief at the first dose ; but it is not unfrequently the case, that after puking, the skin becomes moist, and the loose rattling breathing supervenes : repeating the emetic of Sanguinaria then, frequently removes the whole complaint in a short time. In December, 1804, I was called to Westhaven, to visit a child of my sister, then sick with Croup. I arrived on the third day. The child was attended by Dr, Tomlinson of Milford, and Dr. Ives, senior, of New-haven—one physician depended upon bleeding, the other upon Seneka. The child was bled early ; the seneka, &c. pursued freely ; the disease continued to increase, with the tight whistling respiration. I gave an emetic of blood-root, without any material effect ; and afterwards, by the application of steam, &c., endeavoured to produce a perspiration. When that was affected, the tight breathing was changed to a loose rattling ; the emetic of blood-root was then repeated, and the whole disease ejected at one effort. No further difficulty of breathing was experienced.

When called to see a patient with Croup, my rule is to give an emetic of blood-root ; if this does not produce relief, I direct a decoction of seneka and squills, and endeavour to procure a free perspiration. With other remedies I often use the warm bath to accomplish this purpose ; and if the symptoms are extremely violent, I bleed and order the emetic to be repeated every two or three hours, until relief is obtained. In addition to this, I make use of calomel as

tion. The face was swelled, the countenance suffused, and every appearance indicated immediate dissolution. The child had been sick twenty-four hours or more, with alternate paroxysms and abatement of symptoms. He opened a vein ; the struggles of the child promoted a free evacuation ; and he let the blood flow until the patient fainted. A moisture appeared upon the skin ; he gave an emetic ; the tight breathing was immediately changed to a loose rattling, he kept the child in a full perspiration, ordered a decoction of seneka and squills, and repeated the emetics,—the child recovered.

a purge in protracted cases. Sometimes the complaint is combined with cholera, or a collection of mucus in the intestines: in such cases, a free use of jalap, calomel, and other purgatives, together with injections, is peculiarly necessary. The disease sometimes will continue two or three days, even where it is treated early, before it gives way entirely; and there are cases where blood-root will not vomit the patient at all. Occasionally, by administering squills and seneka, until a nausea was induced, and then repeating the blood-root, I have succeeded where blood-root would not answer by itself. At other times I have found squills to answer as an emetic, where I could do nothing with blood-root.

In the year 1804, there were not less than thirty cases of Croup in my neighbourhood, and but one proved fatal after we adopted the course of practice I have described above: it was one of the lingering cases where the child played about, and occasionally in the open air; no physician was called until the fourth day—it was then too late—we could make no medicine operate, and the child died.

We have occasionally had instances of Croup, perhaps every year since 1804; but few cases, however, in any one year. Since that time there have been three or four deaths with the complaint, all of them similar cases to the one I have mentioned: the children were about the house, and a part of the time playing abroad, and except when the paroxysms were upon them, not confined. No physician was consulted in either case within two or three days, and it was found impracticable to make any medicine operate upon them.

The result of our experience led to the conclusion that Croup was a curable disease in perhaps all cases where the "fatal membrane" was not already formed; that after this was fully formed, no remedy would probably remove it. I have never known a case of inflammatory Croup prove fatal, that was treated in the way I have mentioned, where assis-



tance was called in season ; on the contrary, all my observations have fully confirmed the correctness of the conclusion we made in 1804. This plan of treating the disease is now, I believe, adopted in substance in most of the neighbouring towns, and as far as I have been informed, with success.

The other form of the disease, arising from *Cynanche Maligna*, extending within the trachea, is less frequent. Some years since there were a number of cases in this and a neighbouring town. The first patient I saw died within two hours after I had visited her. Three others recovered in the same family—one whose symptoms were thought to be of a desperate character : some other cases were successfully treated the same season. The course pursued was, puking with blood-root, stimulating gargles, inhaling the steam of camphor, with the exhibition of calomel in repeated doses, bark, and the other remedies usually prescribed in *Cynanche Maligna*. But the last case of this kind I have seen, was one in which there was little or no difficulty of breathing in the first instance ; the throat was in a measure filled with scabs covering ill-conditioned sores. An emetic of *Sanguinaria* was given, which threw off a great part of the scabs ; but the disease still continued to spread, until it extended within the trachea, and brought on this kind of croup, which finally proved fatal to the patient.

I believe it is agreed by all physicians, who have used blood-root in croup, that it is generally the best emetic. From the irritation it produces about the throat, the patient is more apt to cough when he strains to vomit, and thus is enabled to eject from the trachea and lungs with more certainty. It is often the case that portions of viscid phlegm are thrown up from the lungs by the operation of blood-root, without the stomach being at all emptied of its contents.

After nineteen years experience, I am convinced that by a judicious pursuit of the mode of treatment above described,

inflammatory croup may be cured with as much certainty as Pleuritis, if taken in the first stages of the complaint. From the nature and tendency of the symptoms, in that form of the disease arising from Cynanche Maligna, the prognosis must be much more uncertain.

From the foregoing observations, it will be perceived, that if my ideas are correct, neither bleeding, emetics, calomel, or seneka, without sweating, can be depended upon in the cure of that species of croup arising from cold and consequent inflammation; but in violent cases an active and thorough co-operation of all the remedies will be found necessary to produce the desired effect. Bleeding may probably be dispensed with in a great proportion of the cases which occur, provided the remainder of the course is thoroughly pursued.

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*Strictures on the doctrine of a modern French writer on Syphilis; addressed to Monsieur Louis Valentin, M. D. Knight of the Royal Order of St. Michel, and of the Legion of Honour, honorary Member of the Literary and Philosophical Society of New-York, Associate to many learned institutions of Europe and America, &c. &c. By FELIX PASCALIS, M. D. Censor of the Medical Society of the State of New-York; Special Correspondent of the Medical Societies of Paris, Marseilles, Bourdeaux, &c. &c.*

I greet but cannot congratulate either the author or translator of the above work; because when sophistry and error are associated with sound and true doctrines, the former remain too long enveloped, and concealed under the sanction of the latter.

This is particularly the case with a volume containing an essay on the *Certainty of Medicine* by the celebrated Cabanis, and another of Historical and Critical observations on Syphilis by A. J. L. Jourdan, M. D. The whole is translated

into English, in one volume, octavo, by R. Laroche, M. D. of Philadelphia.\*

The first work has always stood high in the estimation of the learned, and is a masterpiece in medical philosophy : while the other is a compendium of historical facts, displaying much knowledge acquired from extensive reading, but concludes with constructing an erroneous theory : a perplexing and dangerous doctrine, in a branch of practice unfortunately of too frequent occurrence.

The judgment which I now proffer will appear the better founded, inasmuch as the following matters must prove, that one part of Mons. Jourdan's essay, is the subject of my protest to a claim of priority, and the other has already been refuted in the preceding volumes of this periodical work, which during its long existence has embraced a great range of controversial subjects in Medicine.

The work of Mons. Jourdan is divided into five chapters, which I am obliged to analyse, at least in relation to the task I assume.

*Chapter first* displays a long series of medical documents on the various opinions that have been held and controverted on the cause or origin of Syphilis since the year 1518 to the present day.

These are reduced to four systems :

1. That Syphilis has prevailed from the earliest periods of human society.
2. That it had been brought from America.
3. That it has originated in Europe.
4. That it does not exist as a simple disease but is the result of several distinct affections, between which an imaginary connection has been established ; and this last is precisely the novel theory which Mons. Jourdan is preparing to contend for.

\* I tender my respectful compliments to Dr. Laroche for a copy of the above work, observing that I do not now write as a reviewer, either of the author or his translator.



*Chapter Second* is a learned dissertation in which, by comparing facts with facts, authors with authors, and dates with dates, M. Jourdan satisfactorily refutes the above second doctrine, and Oviedo, Ferdinando Columbus, (the son of the discoverer of the new world) Girtanner, and Astruc who are among its principal supporters.\*

*Chapter Third* is by far the most interesting. Having refuted many arguments as urged by the importers of Syphilis from America, (much the same as used by the importers of yellow fever,) M. J. produces another series of ancient and recent authorities, and some even from the scripture; to prove that all, and each of the symptoms of Syphilis have always existed, were accurately described, and have been the subjects of many modes of treatment and cure: yet as another objection could be inferred from his statement, namely, that a multitude of disgusting affections attacking the genitals, would naturally have suggested to our ancestors the idea of a poison *sui generis* and probably imported; he happily explains how these morbid effects were accounted for under the prevailing medical doctrine of the concoctions and digestions of the four humours and their respective *emunctories*. It exists in the treatise *KEPIRONHE* which is found in the works of Hippocrates, was embraced by many ancient philosophers, and defended by Galenus. Of all morbidic humours, ac-

\* With no better testimonies than those assembled in this work, I would not hesitate to believe that the epidemy of the 15th century, which commenced in 1493, was simultaneously in point of existence, *syphilis* and *pestis orientalis*; hence the name *pestis inguinaria* was equally used for either, although the latter was as rapidly fatal at that time as it is now: it broke out so often in the south of Europe without being traced to any known distinct cause, that it became familiarly known to all physicians, but so much dreaded as to leave the cure of it exclusively to providential or miraculous interference. When the council assembled at Trente became offensive to papal authority, the celebrated Fracastorius, their physician, was employed to draw them to Bologna, in the dominions of the pontiff. He assured them that the plague was in Trente, and he would not stay there, because he had not obligated himself to attend or cure patients with the plague. The scheme was perfectly successful.

according to that theory, none was more poisoned and virulent than the Catamenial blood, and that arising from the superabundant semen !

*Chapter fourth*, is a tedious exposition of different medical questions among the physicians of the middle age, long before and long after the importation of Syphilis in 1494.—They are contradictory, and each of them inconsistent with the belief of foreign origin, viz.

1. The Syphilitic virus is created by promiscuous intercourse, and frequent and unnatural venereal acts.

2. It is a contagious disease entirely different from the epidemic of the 15th century.

3. Syphilis not only creates the ordinary known symptoms but can be transformed into ordinary as well as incurable complaints.

4. It is indestructible in the human constitution and of course is transmissible from generation to generation: there has been much labour expended in drawing up this chapter I confess, but it contains very little useful instruction, except it be a perfect view of the humiliating and deplorable state of medical science in the middle ages.

*Chapter Fifth.* The reader will not be surprised by being told that this is again another review of medical opinions ransacked from the records of old times, down to the 19th century, on the origin and cause of Syphilis; when he hears that the conclusions are drawn from the diversity, discrepancy, absurdity and ignorance of past ages, he feels authorised to draw two paradoxical inferences;—1st, that there is no venereal disease.—2d, that there exist only local venereal affections which are contagious.

Such is the work of M. Jourdan in relation, as I said to the points of my intended criticism: I am precluded therefore from singling out his admirable patience, his minute commentaries, and his many ingenious observations, which must have occupied a very large part of his leisure. On the other hand

I must only glance at, and pass over several pathological observations or therapeutic inferences which he has drawn, and which are not in accordance with the predominating medical institutes. It remains to show now, that the first and most interesting question on his subject, and which he happens to have convincingly discussed, was by me decided thirteen years ago,\* and candidly and explicitly published; nor could I be shewn a single writer among those who have contended for the spontaneous or natural origin of Syphilis, who besides myself has accounted for this almost universal epidemic in the 15th century, namely in the year 1493 and following. This account was published in New-York under the date of the 20th of December, 1811, in the 15th volume of the Medical Repository, page 231, which I am satisfied has been known and circulated among the learned medical institutions of Europe.

Dr. J. I am persuaded has never seen or read the following, or he would have saved himself the trouble of proving one position already well established, and another which has long ago been refuted.

"There never was a medical subject more diligently inquired into, more extensively treated, and ably discussed in all its controvertible points, by numerous and able writers, than the venereal disease. Many of the ordinary symptoms excited by its poison, or by some other cause were recorded in Holy Writ, (vid. *Levit.* chap. xv. v. 2 and fol.) with all the necessary means of prevention. Greek and Latin writers had also described various horrid diseases of the parts of generation, which yet remain difficult to ascribe to simple and natural causes. It has been proved that more than fifty years before the return of C. Columbus to

\* I have not been able to ascertain in what year Mr. Jourdan's Historical and Critical Observations were published; it is not, however, mentioned under date of 1821, in the Dictionary of the Medical Sciences, Art. Syphilis, in which all the known works on the subject are recorded without Mr. J.'s name, which is too remarkable to have been intentionally omitted.



Europe from America in the year 1493, a pestilential kind of disease, (*pestis inguinaria*) mostly contracted by sexual intercourse, had extended from the lower ranks in society to the highest, among the commercial nations of Europe and Asia. Its rapid prevalence and virulent symptoms were more noticed after the expedition of Charles VIII. from France to Naples; and it furnished some writers of that age with plausible suspicions of its American origin, because Spanish troops, lately from Hispaniola had been sent over to Italy. That opinion gained credit in after times, and was professedly supported by Girtanner, Astruc, and Van Swieten. But writers equally authoritative and ingenious have opposed and refuted that opinion. They have shown that certain endemic and contagious diseases have been propagated into other countries, with different modifications of their symptoms, and these have also varied at succeeding periods of time. Thus the Judham of the ancient Hebrews, (*vid Swediaur, vol. ii. chap. xv.*) the Elephantiasis, or the *Persian Fire*, have long ago been known in Hindostan. The *Yaws* of Africa have again reached our shores; the small pox must also be a transformed disease from some other part of the world. It is presumed that the *Sibbens* of Scotland and the *Mal Anglois* are different species of Syphilis. With these analogies we may conclude in favour of the opinion which points out many more sources than one of the venereal disease, that dreadful scourge of mankind."

"While distant countries were explored, and diseases compared through successive ages to trace Syphilis to its origin, it is to be regretted that a more natural and incessantly renewed source of it had not been thought of or adverted to; to wit, the promiscuous connexion of the sexes in that state of the human constitution, which by habitual lust, intemperance, and uncleanness, may create morbid and virulent secretions. It is not a far-fetched analogy to say, that all flesh is unsound and unwholesome, during the periods or

seasons of reproduction. The various functions of the female parts of generation in our species are frequently rendered by disease a salutary outlet or *emunctory* of all acrimonious humours; and when become more contaminated by a life of prostitution, it is easy to conceive how dangerous may be an immediate contact with elements, perhaps as acrid and virulent for aught we know, as those gangrenous matters from living or dead bodies, which have been known to inflict a sudden death. Promiscuous prostitution among persons of different ages, colours, habits, and morbid affections, must surely contribute to the creation of a specific poison, peculiar to salacious constitutions and meretricious embraces: indeed, the most renowned among those creatures, were always apt to communicate the most violent disorders. With the volume of history in our hands, we learn also, that syphilis has greatly prevailed, and has produced its worst ravages, among nations marked by the greatest degrees of unrestrained, corrupted, and debauched habits; and what period more remarkable for that kind of depravity throughout the civilized nations of Europe, than the 15th and 16th centuries? Then lustful passions, ready compliances with vicious and dissolute manners, were considered as accomplishments by the high and ordinary ranks of society both in church and state. Extant medical and historical works of that time, unblushingly place among the victims of the *Grand gore*, the names of popes, kings, cardinals, bishops, &c. Every person knows that the palace of Alexander VI, had been many times appropriated for the sports, dances, and exhibitions, of fifty handsome courtezans of Rome, to whom prizes and presents were afterwards distributed by that incestuous pontiff and his daughter, to reward the seductive displays of naked charms, (*vide Roscoe's Leo X.*)”

“One of the great charges brought by the House of Lords against Cardinal Woolsey, the Prime Minister of

Henry VIII, was that of having whispered in the king's ear, whilst he knew himself to be infected with the venereal disease.

“ It was principally at that time, that many pious and indignant Christians retired to convents, binding themselves by vows under the banners of chastity, forming various denominations of monks and friars; but the more numerous such institutions for celibacy became, the greater was the danger of that kind of immorality, which insinuated itself into the solitary cloisters of virgins: as it overleaped the barriers of the connubial bed, and exposed every female to promiscuous connexions, it necessarily multiplied the impure sources of a virulent disease.”

Dr. Jourdan has not noticed the above important facts and circumstances, as explanatory of the prodigious extension of the ravages of Syphilis during the 15th and 16th centuries, and was, therefore, more readily induced to adopt that extraordinary opinion of his own, which defines the disease as the effect merely of local affection. But the essay from which I produce the above extracts, and the four following were all written and predicated on the *constitutionality* of syphilis. *The first* treats of the various modes by which it is propagated; these are, however, reduced to two divisions: the one by contact through various kinds of animal fluids or secretions, such as mucus, pus, sanies, (but never blood;) *the second*, a congenital transmission, and *aura syphilitica*; this definition led me to the desultory discussion of several questions, 1. is Gonorrhœa created by this virus, or by another kind or degree of poison? I concluded for the first exclusively, although the matter produced by that local affection is less active than any other secretion. 2. What are meant by venereal action and venereal disposition? the first designates local affections of syphilis, and the second its constitutional existence in the human system. 3. Is the *aura syphilitica* a secretion of the body? yes, it is the matter of sweat or perspiration. The



case of an infant infecting a nurse was last examined, in relation to natural inferences, and matters of medical jurisprudence. The infant could not communicate a virus producing gonorrhœa, buboes, or chancre, according to the ancient and well established axiom on syphilis, "*Et quâ parte contrahitur primò se manifestare solet.*" It is by the natural and ordinary effects of syphilis existing under any one of the above forms, that every practitioner is put in possession of a key by which he can decide, not only in many circumstances of anomaly of disease, and uncertainty of infection of infants, but in cases of married persons, who may innocently suffer unpleasant and equivocal symptoms: as well as in a variety of chronic and lymphatic diseases, such as old ulcers, caries of bones, &c. &c., as I have explained in the 2d, 3d, and 4th essays, which were consequently published on the same subject. In fine, the principle of the constitutionality of syphilis, has been held up in a last communication on the use of mercury in the treatment of that disorder, (in vol, IV, new series, page 32,) in which I have abundantly proved that "its most unequivocal symptoms may often be removed by the remedy, without in the least affecting the constitutional disease."\* It may be granted to Dr. Jourdan, that distinct syphilitic affections can exist without infecting the constitution, and that in such recent and rare cases, it may possibly happen that their cure suffices for the further preservation of the subject. It takes, indeed, some time before a gonorrhœa, a bubo, or a chancre, can be transformed into constitutional disease; with respect

\* The four Essays alluded to, were exclusively composed and published with a view to defence in a prosecution for damages by a nurse, who pretended to have been injured by an infected nursling, who was recommended by a physician as a harmless subject. They proved useful, and much to the desired purpose; but to all such as may choose to resort to those documents, I must observe, that a didactic and methodical order in relation to the present strictures is in them deficient, and so imperfect as to require from me an apology for not having done more justice, thirteen years ago, to such an important subject.

to this effect, that kind of poison is perfectly similar to that of hydrophobia, which by a successful cauterization and suppuration of the bitten parts is destroyed, and its terrible effects on the human system prevented: in like manner I have seen the spontaneous maturation and suppuration of a syphilitic bubo, effect the radical cure of a robust man, who did not take an atom of medicine. When relating in the *Medical Repository*, vol. VIII, page 32, two instances of perfect cure of aggravated local affections by considerable hemorrhage, I had no reference to the constitutions of the two individuals which remained perfectly free from disease; but I am now induced to class the same cases with simple local affections, because they were recent, and the virus had not yet progressed by its absorption into the constitution. These facts come in confirmation of Hunter, and others who have not been afraid to trust in practice the cure of their patients to the effect of an artificial hemorrhage, provided the local symptoms had been traced to a very recent infection. It can, therefore, be aptly concluded, that the exception from the rule, or that the simple and distinct local syphilitic affections of M. Jourdan, are by themselves the proof, that much beyond these, there is a constitutional operation of the same cause, just as there is in hydrophobia, small-pox, cow-pox, &c.; although in every one of the like contagions, the disease may commence by a local affection, which being removed within a proper period of time, there is an end to any further bad consequence.

In taking leave of Mons. Jourdan's *Historical and Critical Observations on Syphilis*. I must repeat what I have already said, that I did not venture in those strictures as a reviewer, and much less as a sufficiently prepared critic. This last task has appeared to me quite unnecessary, because to establish his concluding propositions, the author has not produced any better arguments than those which he has been pleased to infer from a great number of medical quotations, which he has himself disqualified, by representing them as results

of the different theories which reigned at the various periods at which the observations were made; and of these he has given his most unqualified disbelief. Owing to this deficiency of proof, he has "restricted himself to the most essential points, on which however, on some future day, he intends entering more largely." The task of reviewer I have declined also, not without much regret; as it would have given me the opportunity of bestowing due praise upon his industry, and erudite labour of quotation, and upon the ingenuity of his entertaining remarks on the barren soil of vice, superstition, and ignorance, in which he has trodden with great difficulty, though not without some advantage to the science of medicine.

This Essay, dear and honoured Sir, I now commit to you, whom an extensive acquaintance with French and American medical literature, best entitles to be a judge or an umpire between contending writers across the Atlantic ocean. You will pardon the liberty I take to engage your attention in a matter of greater interest to science, you will confess, than it can be of injury to me, in regard to my claim of priority in the definition of the true cause and origin of syphilis. I will not precisely charge Mons. Jourdan with plagiarism, for had he read the Medical Repository in relation to the first question he has learnedly established, he would not have omitted those facts and circumstances which did so much to aggravate the symptoms of syphilis during the 15th century, and thus contributed to its universal propagation. But if your writer has thought proper to attempt a novel subversion of the established doctrine of the constitutional attribute of syphilis; to change its qualification of *disease* into that of *local affections*; it remains with him to fulfil his promised task of entering more satisfactorily into the theory he has announced and commenced to promulgate, otherwise he will merely incur the reproach which, he says, Voltaire had made to his countrymen, "of being too fond of novelties;"



although quite differently from him, I scornfully reject his assertion, "that truths are always proscribed among Frenchmen, when new, and are only received when old."

I remain, with great respect and friendship, dear and honoured Sir, your obedient servant and associate,

FELIX PASCALIS.

New-York, February 20, 1824.

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*Observations on Dr. Alexander Somervail's Medical Topography of a Section in Virginia. By Dr. GEO. R. PITTS, of Westmoreland County, Va., Member of the Philadelphia Medical Society.*

IN the August number of the Philadelphia Journal, is a production of Alexander Somervail, M. D. on the medical topography of the section of the country in which he resides, interspersed with observations on the character and treatment of the fever prevalent therein.

Although many of the positions assumed by the author, are in direct hostility to principles long since established on the basis of observation and experience, the editor of that journal gratuitously invites his readers to the production, as one abounding with "curious observations and ingenious reflections." I feel no small degree of delicacy in attempting to invalidate any statement, originating with a physician "no less venerable for his learning than his age." But "to err is human," nor can age, talents, or experience, release us from the fallibility of our nature. If the opinions inculcated by the author before us be consistent with fact, the mistake under which I have laboured for the last seven years, is of a kind the most grave and melancholy. It in-

volves me at once in the charge of having committed to hazard the lives of many individuals committed to my care. I will, therefore, make an attempt, however feeble, to support opinions I have long considered correct, and which appear to be in direct opposition to those of the author before us. In doing so, I will endeavour to be as respectful as the subject will admit, and should any observation be made calculated to wound the feelings, or even to disturb the tranquility of the author, I request that he will ascribe it *alone* to the wide difference in our medical opinions; having ever entertained for him the highest esteem, as a gentleman distinguished no less for his talents than his age. In relation to his Medical Topography of the country, no objection can be made. Our author has here displayed much judicious and correct observation. In regard to the character of the fever, indigenous to the country, and the mode of treating it by the author, I see so much from which I am disposed to dissent, that were I to indulge my animadversions, this paper would be unwarrantably extended. He commences by saying, "I have not seen a case of bilious fever for the last twenty years, except in Tappahannock," a distance of twenty miles from his residence, to which he is seldom called in his professional character. He adds, however, "many of my neighbours of the profession *now* meet with what *they* call *bilious remittents*; in my opinion, however, these are *continued* fevers, and the abundance of bile evacuated in *their* practice, is produced by the *perpetual* use of calomel as a purgative." My professional province is separated from our author's by the river Rappahannock, in width about one mile. I have, however, had several professional applications from the author's side, and having frequently other inducements to cross the river, a favourable opportunity has been afforded me of judging of the character of the fevers on that side: and I unequivocally declare, that the character of the fever on both sides of the river is the same. That *bilious remittent* fever is the prevailing autumnal disease in

this section, will be made evident by delineating the features of the disease. That the fever is modified by the operation of *constitutional*, but more frequently of *local* causes, (such as a residence in the vicinity of a mill-pond, marsh, &c.) no one will pretend to deny. These circumstances, however, do not authorize a doubt, or affect the reasoning, in regard to the general character of the disease. That *intermittent*, *remittent*, and *continued* fevers, are links of the same chain, altered in degree, by the remote, predisposing, and exciting causes, from which they proceed, is to my mind, a proposition that admits neither of doubt nor disputation. The opinion was inculcated by the eloquence of Rush, and is sanctioned by the authority of Armstrong; independently of a host of inferior writers upon the subject. How then is our author to be understood when he says, we have no *remittent bilious* fever; but that the fever is continued? The fact is, we have *intermittent bilious*, *remittent bilious*, and *continued bilious* fever, modified by the circumstances before mentioned. He has not so much as favoured us with any of the symptoms, constituting his *continued* fever. As it is not, however, of a bilious character, it is to be supposed that it is typhus, yellow, or simple inflammatory! We are, however, suffered to grope in the wide field of conjecture! I will endeavour in some degree to remedy this singular oversight, by presenting the symptoms which characterize our autumnal *bilious* fever, as they were exhibited in my practice on each side the Rappahannock. The premonitory symptoms are lassitude, drowsiness, yawning, wandering pains. The patient is shortly after seized with a chill or confirmed ague, of longer or shorter duration, accompanied with pains in the back and loins, nausea and vomiting of bile. The reaction of the system follows, accompanied with a strong and active pulse; the face is flushed—eyes red—violent pains in the head and back—skin dry and yellow—mouth and tongue parched and clammy—great increase of external heat, particularly over the region of the sto-



mach—great irritability of that viscus, and the patient, to use his own words, exclaims, “I am burning up.” These symptoms continue for a longer or a shorter time, and then yield to a profuse perspiration, and an intermission is obtained. Commonly, however, slight remissions occur, by a gradual mitigation or declension of the symptoms, more especially in the forenoon, without the appearance of the smallest perspiration. On some extraordinary occasions, however, the fever runs its course for a fortnight or three weeks, without the discovery of even the most imperfect remission. It is very strange, under these circumstances, that our author should have seen so many cases of intermittent and continued fever, and never a case of a *remittent* character! But to proceed with him, “to arrest the progress of these fevers as soon as possible, I consider of the greatest consequence, being sure, if allowed to continue, to produce irreparable mischief. The first step is to empty the *primæ viæ most effectually*, and for this purpose there is seldom need of emetics, I now prefer the saline cathartics and of these vitriolated tartar (sulphate of potash), epsom salts (sulphate of magnesia), mixed with magnesia (carbonate of magnesia), and phosphate of soda, are selected, believing them to exert a salutary influence in fever, independent (ly) of the evacuation.” My practice on the contrary is this: the first step being “to empty the *primæ viæ most effectually*,” I give a combination of epsom salts and tartar emetic, a dose which possesses the threefold advantage of operating upon the stomach, bowels, and skin. Should there not be an evident abatement of the fever after the operation of this mixture, or should I perceive an undue determination to the head, lungs, or liver, I invariably (in adults) draw from eight to sixteen ounces of blood, which seldom fails to reduce the extreme heat, moderate the violence of pain, and equalize the excitement of the system. In the event, however, of *great* general excitement, or local congestion, the emetic is preceded by venesection. Indeed,

I have frequently found it impossible to produce free vomiting until the force of the arterial system was reduced. These appearances, however, are not always manifested. In some instances, the irritability of the stomach is such, that it is almost impossible to make medicines of any kind remain upon it. Under such circumstances, I resort to cooling drinks, cold, and even iced water, ice in substance, magnesia, soda-powders, or charcoal, which usually succeed : in many cases, however, it is necessary to apply a blister or sinapism over the region of the stomach and liver, which in my practice has always had a good effect. After the cessation of the vomiting, and when the stomach becomes perfectly quiet, I proceed to administer the sub-muriate of mercury, in the dose of four grains every two hours, until four doses are given ; the operation of which, rarely commences until the exhibition of the last dose, when I encourage it with broken doses of epsom salts. These medicines seldom fail to bring off a large quantity of dark, offensive bile, to the manifest reduction of the fever, and relief of the patient. It is not to be supposed however, that so obstinate and violent a disease as our autumnal bilious fever, is to be subdued by so *small* a quantity of colomel. I frequently find it necessary to give a dose of this medicine every twenty-four hours, for eight or ten days successively, before a decisive impression can be made upon the disease. And for this purpose, I give a dose of six or eight grains at bed-time, combined with the compound powder of ipecacuanha, working it off the following morning with epsom salts. There are other indications which should not be neglected ; epispastics must be applied over the seat of pain or congestion ; the parched and dry skin must be frequently sponged with vinegar or spirits, and the patient divested of all covering, save the body-linen, and placed in a situation where he can receive the advantages of cool air. These indications, though important, I consider secondary only, when brought in competition with the salutary influence of that "*Sampson of the materia medica,*" *calomel*.

A few years past, I was in the habit of giving a full dose of calomel (say fifteen or twenty grains) at once, in bilious fever; but have lately fallen upon the plan before mentioned, with a view, that a part of it might operate on the glandular system; for I have strong reasons *to believe* that calomel "exerts a salutary influence in (bilious) fever," independently of its operation on the bowels.

It is time, after this long digression, to return to our author. After observing, that the primary operation of calomel was to increase the hepatic secretion, he emphatically asks the following question: "considering it necessary to evacuate the bile already in too great abundance, *is it rational* to attempt it by increasing the quantity? The first answer that I shall give to this question, is, that a physician who indirectly acknowledges that he never gave calomel in bilious fever, and who, agreeably to his own confession, has not seen more than a few cases of it within the last twenty years, cannot be prepared to condemn the use of calomel in disease, or to interrogate dogmatically those who administer it. When he has given that medicine a faithful and judicious trial, and finds the result unfavourable or pernicious, then, and not until then, can he be prepared to impugn the use of it. Many physicians have long used, and continue to employ calomel in bilious fever, a majority of whom, doubtless, are satisfied with the effect of its operation, without waiting to decide the question, *how* that effect is produced. Our knowledge of the efficacy of medicines rests upon experience; we prescribe them, not because we know, *a priori*, that certain effects will be produced; but because experience has made us acquainted with their usefulness. "Medicine has not yet arrived to that degree of perfection, when the treatment of diseases shall be conducted on purely scientific principles." Is it more irrational to suppose that calomel should cure bilious fever, by increasing the hepatic secretion, than to suppose that ardent spirits, oil of turpentine, or raw cotton, would allay the pain or dispel the



inflammation of a burn? If the author himself were asked, how bark, sal ammoniac, and laudanum, cured continued fever, could he give a satisfactory answer? Judging *a priori*, we should suppose that one of the three would predominate; but it would be a difficult matter to decide which. Bark is a tonic and astringent, sal ammoniac a febrifuge, sudorific, and cathartic, and laudanum a stimulant and anodyne. We should suppose that such a combination would be good for nothing, or worse than nothing, and yet it is known to be an *excellent* remedy in *continued* fever! The question, however, why calomel should cure bilious fever by increasing the hepatic secretion, does not appear so difficult as our author imagines. We know by autopsic examinations, that in bilious fevers, the liver is in a state of high morbid action; in my opinion, it is the principal seat of disease. It is admitted, that the primary operation of calomel is upon that viscus. The stronger action then (that of the calomel) overcomes the weaker (that of the disease), which stronger action terminates in health, or at once produces a new and healthy action.

Upon this principle of the great Hunter, I believe that calomel overcomes the venereal disease; and that internal inflammation, is subdued by the external inflammation of blisters. I will submit another answer to this question, which I hope will not be considered unphilosophical.\* May we not suppose, that in bilious fever, the blood is in an unhealthy condition, and that calomel, by operating so powerfully on the liver, may impart to that organ, capacity to deprive the blood by secretion, of whatever is noxious to the welfare of the system, and that the subsidence of fever and return of health is the result of this operation? It is believed, that in jaundice, the bile makes its way into the circulation, and we know that this disease is cured by calomel.

So thoroughly convinced am I, from an experience of seven years, of the indispensable utility of calomel and the

\* To the humoral pathologists, this answer is submitted.

lancet, in the fever of this climate, that were I to be stripped of these resources, I should be compelled to abandon the practice of physic! A reliance solely on aperients\* and bark, appears to me to be affording a lame support, even to the uncertain efforts of nature!

Our author has not mentioned as useful, either the lancet or epispastics in his *continued* fevers, and the presumption is, that he never uses them, or deems them necessary! He continues his objections to calomel with the following queries. "Does not, moreover, the increased secretion of bile, whether effected by the stimulus of these fevers, or the continued use of calomel aggravating the evil, produce a state of *quiescence* in the secretory organ, when that stimulus is removed, and thereby give rise to obstruction and enlargement of the liver? It is the common family prescription of it, as well as the *unnecessary use* of it by physicians, that I doubt not has introduced a new disease amongst us. I hardly remember a case of enlarged liver, in my practice, until the year 1800, except among hard drinkers, and now I very often see it where no spirit is consumed. What is the cause of this change?" I will endeavour to answer these inquiries, and I hope satisfactorily. From what I can learn from medical writers upon the subjects of acute and chronic hepatitis, it appears that these diseases are coeval with *bilious remittents*, and that in proportion to the violence of the latter, is to be found the frequency of the former. In the West-Indies, where bilious remittents, and even yellow fever (which is *now* generally admitted to be a high toned, or aggravated form of bilious fever), yearly prevail, instances of obstruction and enlargement of the liver are frequent.† We know from post mortem examinations, that in bilious fever, there is an undue determination of blood to the liver, attended with distention, or rather congestion. We have, at the same time, the most indisputable evidence that the bile

\* We think this is a hasty remark of Dr. P.—ED.

† See Thomas' Practice.

is not only increased in quantity, but changed in quality. Unless, then, the liver is relieved of the burden of blood, by which it is oppressed, and of its morbid disposition to secrete bile, what must be the consequence? Obstruction and enlargement certainly. The leading indications then, in bilious fever, are to relieve the liver of the burden of blood by which it is oppressed, and to carry off the irritating matter secreted, as speedily as possible. The lancet answers the first indication, and calomel the second. The question which arises, viz. why have we more cases of enlarged liver now than formerly, is then readily answered. *It is in consequence of the greater violence and longer duration of our autumnal bilious fever.* That our autumnal bilious fevers are more violent now than formerly, is confirmed by the report of all the old residents with whom I have conversed on the subject. The fact is, indeed, frequently made the subject of conversation, and repeated inquiries have been made of me to account for the wonderful change. They say, that twenty or thirty years past, they had *intermittent* fever, the effects of which were so slight, as scarcely to prevent its subjects from attending their usual avocations.

That the bilious fever of this neighbourhood has increased in violence within the last seven years, I am convinced from my own observations. And I am informed, by a very intelligent professional neighbour, that two cases which came under his observation last fall, of what is here called bilious fever, would have been pronounced yellow fever in Alabama, where he once practised medicine.

These facts, of themselves, are sufficient to account for the greater number of enlarged livers now than formerly, without a resort to the *distending* properties of calomel. But there is a secondary cause, which I consider worthy of notice: it is the hasty and injudicious use of bark in bilious fever; the astringent property of which, blocks up the biliary ducts and prevents the passage of bile. The consequence is, obstruction and enlargement of the liver. So well con-



vinced are some of my professional neighbours of the injurious effects of bark in bilious fever, that they have entirely abandoned the use of it.

In regular intermittent fever, after free evacuation with emetics and calomel, the thoroughwort (*Eupatorium perfoliatum*) is preferred, and I think deservedly. "Is it rational" to suppose that calomel, which as a deobstruent has no equal, and which is recommended by all medical writers,\* as the most certain, and which we know from our daily observations, to be the most *effectual* remedy yet discovered, for obstruction and enlargement of the liver, should, at the same time, be the very instrument of producing that disease? The idea of an *organized* substance becoming enlarged by remaining in a state of inaction or "*quiescence*," (although originating with a physician confessedly "venerable for his learning and his age,") carries with it a philosophical contradiction, and its own refutation.

\* Cooper, Thomas, Faithorn, &c.

## REVIEW.



*Histoire des Phlegmasies ou Inflammations Chroniques, fondée sur de Nouvelles Observations de Clinique et d'Anatomie Pathologique, &c. &c. ; Par F. I. V. BROUSSAIS, chevalier de l'ordre royal de la légion d'Honneur ; Médecin en chef et Premier Professeur à l'Hopital militaire d'Instruction de Paris ; &c. &c. Troisième Edition, revue et augmentée de notes. Vol. Trois. Paris, 1822.*

*Examen des Doctrines Médicales et des systèmes de Nosologie ; Ouvrage dans lequel se trouve fondu l'Examen de la doctrine Médicale Généralement adoptée &c. ; Précédé de propositions Renfermant la substance de la Médecine Physiologique ; Par F. I. V. BROUSSAIS, Chevalier &c. &c. Vol. Deux. Paris, 1821.*

(Continued from page 103.)

**CEREBRAL DISEASE.**—The phlegmasiæ of the brain and its membranes present few points of resemblance with other inflammations, and they have, heretofore, been little understood. The symptoms were referred to their true source only, in cases of injuries of the head, and in such as exhibit the most evident signs of cerebral lesion, as violent pain of the head, high and raging delirium, great increase of muscular power, convulsions, and violent fever with the pulse full and strong, which mark phrenitis or fever of a more moderate type with comatose delirium, prostration of strength, partial paralysis, carphology, and other convulsive movements, which are thought to indicate inflammation of the parenchymatous substance of the brain. Acknowledging such symptoms as these as indications of cerebral disease, one would have thought that practitioners could not easily

have been led into error, in appreciating their nature and character ; but as they considered phlegmon as the prototype of the phlegmasiæ, they expected to find the cerebral organs after death in a state of suppuration, or at least exhibiting the more violent traces of inflammation ; and not being aware, also, that inflammation of the mucous membrane of the digestive organs, is often the cause of the cerebral disorder, they thought these symptoms were attributable to the malignant character of idiopathic fevers. Inflammations of the pericardium, and of those portions of the pleura and peritoneum which cover the diaphragm, are also very liable to produce cerebral affection ; hence the latter complication has received the appellation of paraphrenitis.

The following deductions on the nature and character of cerebral disease, are the result of repeated observation of the acute and chronic forms of the disease. 1st. That most generally, except in cases arising from external injury, the morbid irritation is communicated to the brain from the mucous membrane of the organs of digestion. 2d. That cephalalgia, delirium, and convulsions, preceded by stimuli or irritants applied to the mucous membrane of the stomach and small intestines, are the immediate effect of a sympathetic irritation of the brain, and may be considered as the first degree or grade of inflammation of this viscus. 3d. That very often in the course of inflammation of the organs of digestion, this grade of disease, bordering on inflammation, becomes changed into real inflammation, either of the membranes or parenchymatous substance of the brain. 4th. That if death takes place before this sympathetic irritation of the brain shall have had time to be converted into a true inflammation, the autopsic examination will show merely an injection and hardness of the cerebral substance, injection of the pia mater, or opacity of the arachnoid membrane, according as the irritation has been deep seated or superficial ; whilst the digestive organs afford unequivocal traces of an inflammatory condition. 5th. That in persons predis-



posed to cerebral disease, the sympathetic influence of an inflamed stomach will elevate the cerebral irritation into inflammation, so that the cerebral symptoms shall predominate over the gastric affection ; and examination after death will exhibit evident marks of inflammation of the brain, and even sometimes suppuration in this organ. 6th. That even were the cerebral irritation is the idiopathic affection, it cannot continue a long time with much force, without producing gastric irritation, as is exemplified by the facility with which traumatic lesions of the brain produce vomiting. 7th. That this sympathetic action of an inflamed brain on the stomach and its appendages, always produces a certain degree of gastritis, and sometimes of hepatitis. 8th. That apoplexy, palsy, insanity, catalepsy, tetanus, and epilepsy, are really phlegmasiæ of the brain, produced by different degrees of irritation of this organ, as from hemorrhagy, suppuration, or a scirrhus condition, &c., and that these chronic irritations bear the same relation to the digestive organs as do the acute forms. This point is more particularly insisted upon, as cerebral disease, especially mania, is often kept up by stimulant agents applied to the gastric organs. 9th. That every cerebral irritation, under whatever form it may manifest itself, either as pain, convulsions, mental alienation, &c. finally tends to produce palsy, general or partial, idiotism, or apoplexy ; and that all these disorders are to be referred to inflammation of the brain and its consequences.

M. Lallemand is the only author who has treated cerebral diseases on the principles of the physiological medicine. The following are some of the conclusions laid down in his last letter. Inflammation of the arachnoid membrane is distinguished by a spasmodic affection of both sides of the body, without paralysis, and attended with delirium. Inflammation of the parenchyma of the brain is distinguished by a spasmodic affection of that side of the body which is opposite to the affected side of the organ, soon followed by paralysis, and not attended with delirium. When inflammation of the

Brain supervenes on arachnitis, one side of the body becomes paralysed, whilst the other remains convulsively agitated. When on the contrary, arachnitis supervenes on inflammation of the brain, the side of the body not paralyzed by the original disease, becomes spasmodically affected. The paralysis produced by inflammation of the brain, is distinguished from that depending on an hemorrhagic affection, by being generally slower in its progress, preceded or attended with spasmodic agitations, cephalalgia, and pain in the extremities. When the sanguineous effusion is not sufficiently considerable to destroy the cerebral functions, and inflammation of the brain succeeds to it, spasmodic symptoms and paralysis of one side of the body takes place; and if arachnitis is still further added to the disease, the other side of the body becomes spasmodically affected.

*Treatment.*—The chief dependance is to be placed upon the employment of bloodletting, together with other antiphlogistics, and on producing revulsion by immersing the lower extremities in warm water, whilst cold applications are applied to the head; by applying blisters and sinapisms to the extremities, and on the back part of the neck, and by using evacuants, as purgatives, &c.; but it must be observed, that purgatives are rather of doubtful efficiency, as they stimulate the mucous membrane of the alimentary canal, which stimulation is easily and directly communicated to the cerebral organ by sympathy.

II. INFLAMMATIONS OF THE MUCOUS MEMBRANE OF THE DIGESTIVE ORGANS.—1st. *Causes.*—Great heat and dryness of the atmosphere, and an atmosphere highly charged with the electrical fluid, may be considered the most powerful predisposing causes of these affections. They act by increasing the irritability of the capillary vessels, and nervous papillæ of the part, and thus predispose it to become inflamed from the application of slight causes. The next in order is the taking stimulant ingesta, as the too free use of animal food, condiments, vinous and spirituous liquors, &c., espe-

cially by persons living in a hot climate, and who have not become acclimated : this cause acts both as predisposing and exciting. A hot and humid atmosphere disposes more particularly to inflammation of the mucous membrane of the colon—the dysentery of authors.

It is probable that the deleterious quality does not consist in the humidity of the atmosphere merely, but in the putrescent and irritating particles that the water holds in solution, and which have arisen from the decomposition of vegetable or animal matter. Hence it is, that this disease is prevalent on ship-board, in hospitals, and crowded barracks, where these circumstances are most liable to occur. A cold moist atmosphere may also become a cause of this disease, sympathetically, by checking the transpiratory process of the skin, and diminishing the tone and energy of the system. Persons of the choleric temperament are most obnoxious to these diseases, such as are of dark complexion, spare habit of body, great irritability of the muscular fibre, and of irascible temper ; whilst females, children, and such as are of the phlegmatic or lymphatic temperament, are most likely to enjoy an immunity from them. These diseases are sometimes excited, without the previous operation of the above causes, by the ingestion of corrosive poisons, falls and blows on the abdominal region, inflammation propagated from some neighbouring organ, or induced by some protracted febrile irritation, and the employment of emetics and cathartics under improper circumstances.

2d. *Symptoms.*—*Acute inflammation of the mucous membrane of the stomach* is sometimes ushered in by a most violent cholera morbus, the discharges being bilious, mucous, and finally bloody : at other times, it commences with violent febrile excitement without chills or vomiting ; the patient complains of excessive thirst, distressing heat in the region of the stomach, soreness of the pharynx, with constriction at the base of the thorax, and the sensation of a globular body continually mounting into the throat ; the



tongue is red and clean, or coated and inclining to become dry, unless constantly moistened, and sometimes there is pain in the epigastric region, extending into the hypochondria, particularly into the right. The sympathetic symptoms are, cephalalgia, delirium, convulsions, and finally coma; slight pulmonic symptoms; the pulse in the first instance full and hard, then becoming small, and lastly, as the disease verges towards a fatal termination, irregular, intermitting, and slow; the skin, in the violence of the disease, is hot and dry, but becomes cool and even icy as the disease is about to terminate fatally.

*Chronic inflammation of the mucous membrane of the stomach* is not announced with the violent symptoms that mark the preceding species, although it frequently comes on as suddenly; yet the premonitory symptoms are generally so mild, as not to excite the attention of the patient until the digestive faculty is considerably impaired; when, the physician on examination, will find most of the symptoms of the acute species, only in less degree. There is, generally, little or no febrile excitement of the pulse until the disease is much advanced; there is a general disgust of food, with its rejection soon after taking it; great constipation of the bowels; a sense of constriction across the base of the thorax, with something rising into the throat which prevents deglutition; sometimes sharp lancinating pains shooting into the hypochondria, at other times a dull heavy pain in these regions; the patient is melancholy, taciturn, and impatient, especially on being questioned on his complaint; the conjunctivæ of the eyes are suffused with blood; the lips and cheeks of a purplish red, and as the disease advances the skin becomes stained with a dark purplish or dirty ochre-like patches, which are very unfavourable symptoms. Towards the fatal termination of the disease, more febrile excitement comes on, especially at night, and diarrhœa at length supervenes and closes the scene.

*Inflammation of the mucous membrane of the small intes-*

tines is most frequently conjoined, and partakes more of the character of inflammation of the mucous membrane of the stomach, than that of the colon; and should be classed accordingly.

*Acute inflammation of the mucous membrane of the colon, or the Dysentery of authors, commences with severe griping pains in the affected intestine, followed by alvine discharges, at first fœcal, and afterwards mucous, bilious, and bloody, voided with tenesmus and pain. The inflammation may be so violent as to produce gangrene of the part in a short time without having even excited febrile symptoms, or heat of skin. The different forms of the disease are so well described by authors, as not to require to be detailed here.*

*Chronic inflammation of the mucous membrane of the colon shows itself in two forms: 1st. In chronic diarrhœas, which are secondary or symptomatic of some disease, as fever, pulmonary disease, &c, and indeed, are apt to supervene toward the fatal termination of most diseases of debility. 2d. As a primitive chronic affection, which form is analogous to the chronic gastritis before described, arising from the influence of climate, and the use of irritating and unwholesome food. It commences with frequent alvine discharges, which gradually weaken and extenuate the patient without exciting febrile symptoms or pain, so that the patient continues for a considerable time able to attend to his ordinary occupations, and perhaps, finally dies without pain, and from mere exhaustion. In some cases, after the disease has continued two or three months, the mucous membrane of the intestine becomes disorganized and ulcerates, when the fœcal matter lodged in this part of the canal, becomes more quickly putrescent than under ordinary circumstances, and a part of it being absorbed into the system, renders the various excretions fœtid. The countenance now becomes haggard, the complexion of a dirty leaden colour, and the pulse small, and frequently succeeded by extreme emaciation, debility, and death.*

*Progress and termination.*—When once the mucous membrane of the digestive organs becomes inflamed, the disease cannot be cured so long as the causes, which had produced it, continue to be applied. If the disease does not prove quickly fatal, it loses its acute symptoms insensibly, and passes into the chronic state, becoming more and more intricate and obscure as it approaches towards its fatal termination. When the disease proves fatal in the first stage, it is either from pain or sphacelation. When it proves fatal in the last stage of its chronic condition, it is either from disorganization of the inflamed part, or from mere exhaustion of the vital powers of the system. If the disease be properly treated, it is usually soon removed; but it is, nevertheless, a long time before the membrane that had been inflamed, is able to bear the same stimulants it was accustomed to before the occurrence of the disease.

*Organic alterations.*—The mucous membrane of the stomach and small intestines is found, after the acute stage of the inflammation, in some cases of a bright red colour, in others, purplish, inclining to black, thickened from the injection of blood and the echymoses, and covered with an exudation somewhat resembling pus; or black, gangrenous and dry. The chronic stage presents the same alterations, with sometimes small erosions, but never those ulcerations with jagged, thickened edges, resembling venereal ulcers, which occur in the cæcum and lower portion of the colon in chronic dysentery; and which are supposed to be caused by the stimulant and putrescent nature of the fæces lodged in these parts.

*Treatment.*—The great object in treating inflammation of the mucous membrane of the stomach is, by means of abstinence, to enable the irritation of the part to subside, and to employ such remedies as shall tend to allay it. The abstinence should extend to the exclusion of every kind of aliment the least stimulating, even broths; and the patient be confined to light mucilaginous decoctions of flaxseed,



gum Arabic, or what is still less stimulating, gum tragacanth, made, if convenient, in distilled water, lest the ordinary spring water should contain irritating materials. In order to render the decoction more grateful to the stomach, it may be slightly acidulated with mild vegetable acid, which is also one of the powerful means of allaying the irritation of the part. The best is the citric, which may be freely given in the form of lemonade; the next in order is the tartaric, which, however, must be greatly diluted: vinegar is too acrid, and besides, contains an alcoholic principle which would prove injurious. The resolution of the inflammatory irritation is at the same time to be aided by blood-letting, employed according to the state of the system, especially by leeches over the epigastrium, to be followed up by emollient and sedative applications, cold lotions, and under some circumstances, as during the great heat of summer, the application of ice; but the lotions that are most generally applicable are tepid mucilaginous decoctions, applied by means of cloths kept constantly wet. Blisters over the region of the stomach appear to be generally injurious by adding to the irritation, and are to be avoided: they are only beneficial in arresting the vomiting which arises from the irritability of the muscular fibres of this organ. Issues are only admissible where scirrhus of the stomach is apprehended, or there is a disposition to glandular disease in lymphatic patients. After the disease appears to be removed, the patient must observe the greatest caution in his diet, first taking only the mildest vegetables, then eggs, milk, &c., and finally, only the lighter kinds of animal food. for a considerable time after his recovery. In treating the more *chronic* forms of this disease, regard must be had in adapting the above directions, to the actual condition of the patient, his state of debility, emaciation, &c.; but still, under every circumstance, to employ tonics, and those only of the mildest kind, with the greatest caution and reserve. The various ailments denominated by authors, gastric derange-

ment, chronic debility, dyspepsia, debility of the stomach, hypochondriasis, obstructions, &c., are very frequently only the more obscure forms of gastric inflammation, and in order to be removed, require to be treated on the same principles. If, on the contrary, they are treated, as is usually the case, by the liberal and constant employment of tonic and stimulant medicines, they are invariably aggravated, until at last they end fatally. In cases of gastric derangement, attended with some febrile symptoms, and appearing to arise from sordes, if after an emetic, the symptoms are aggravated or are only temporarily mitigated and then recur, it is evident that the disease consists in an increased sensibility of the gastric membrane, requiring the use of emollient and antiphlogistic remedies. Sometimes this affection will be marked by the following obscure train of symptoms: great variableness of appetite, the patient taking food especially in the morning with relish, in the after part of the day complaining of fulness and anorexia, great languor without pain, and not attributable to any particular cause, disinclination to move about, with tremors of the limbs, paleness of complexion, habitual constipation, pulse slow and full, and other symptoms which are generally thought to indicate debility of the system, and call for the use of tonics, but which when used generally add to the disease. In such of these cases as are attended with great debility, and in the more inveterate forms of dyspepsia, it is sometimes necessary to conjoin some stimulant, as wine, with the antiphlogistic treatment; but this is only to be done with the greatest reserve, and in very small quantities much diluted. Where intermittents are complicated with inflammation, or increased sensibility of the mucous membrane of the stomach, it will be necessary to combine the use of the mucilaginous substances with that of the Peruvian bark, and in some cases, even wholly to lay aside the bark, and treat the case for the gastric affection solely. The mucous membrane of the *small intestines* is seldom or perhaps never inflamed,

without that of the stomach partaking of it more or less ; and the mode of treatment is the same as when the stomach merely is affected.

*Inflammation of the mucous membrane of the colon*, usually denominated *dysentery*, on the contrary, is rarely propagated beyond the cœcum, and its treatment requires a distinct consideration. As in the gastric inflammation, so in this disease, the great objects are, to avoid the ingestion of substances that would augment the irritation of the inflamed part ; to maintain as strict an abstinence from food as possible ; to allow only the lightest nutriment, such as shall afford the least irritation, and least degree of excitement, as the preparations of rice ; and the purest saccharine substances, as wheat flour ; and to give mucilaginous decoctions to sheath the part and allay the irritation. Enemata are of service to procure the evacuation of retained fecal matter, but their employment beyond this is rather injurious, by distending the inflamed intestine, and acting as foreign bodies. When the dysentery is produced by metastasis, or is a prolonged critical discharge operating with equal violence ; the warm bath, the exhibition of opium, and the application of rubefacients or blisters to the abdomen are of the greatest service. As the disease after twenty or thirty days becomes *chronic*, attended with less pain and much debility, it then becomes necessary to have recourse to the moderate use of mild, nourishing diet, stimulants, and tonics ; but such stimulants and tonics are to be preferred as exert their action chiefly on the stomach and small intestines. The best are light infusions of cinchona, canella, or orange peel. Opium, either in substance or tincture, may be employed with the greatest benefit in the chronic stage, after the violence of the general irritation has abated, leaving some remains of local pain ; it should be given in a mild mucilaginous mixture. Ipecacuanha is by no means worthy of being considered as an anti-dysenteric, and is only of service as an emetic in the first stage, to evacuate the stomach, when that is necessary.



When the tenesmus and pain are very violent, fomentations and emollient cataplasms to the abdomen often give great relief. Where dysentery supervenes in a patient worn down by hectic, the emollient plan of treatment is still to be adopted, but conjoined with the use of opium, in order to allay the pain; and small quantities of wine to animate the enfeebled powers of the system.

HEPATITIS.—Contrary to the opinion prevalent in the schools, I believe phlegmonous inflammation of the liver to be a rare disease. It is most usually the consequence, at least in this country (France), of traumatic inflammations of the brain and its membranes. Different causes have been assigned to explain how injuries of the head produce suppuration of the liver; as the percussion occasioned by the injury; stagnation of blood in the branches of the vena portarum from engorgement of the cerebral organ, &c.; but they are all unsatisfactory, for the secondary affection occurs where there has been no percussion of the system, and the hepatic circulatory system is frequently very much engorged in pneumony, and from aneurism of the heart, without producing this effect. The true solution of this phenomenon is attributable to sympathetic influence. Cerebral inflammation always produces inflammation of the mucous membrane of the alimentary canal, and sometimes consecutively that of the liver, which is one of the appendages of this canal. Primitive gastro-enteritis does also sometimes produce inflammation of the liver, and always more or less of irritation of this organ, as is indicated in these cases, by its tumefaction, and the too copious secretion of bile. Indeed, if we examine the different causes which authors have assigned to hepatitis, we shall find them to be precisely those which produce inflammation of the mucous membrane of the digestive organs. The chief of which is undoubtedly atmospheric heat, which causes gastro-enteritis, as has been proved by numerous autopsic examinations of cases of yellow fever, which disease was formerly thought

to be almost always accompanied with inflammation of the liver; whereas the hepatic inflammation does not really exist in more than one case in a hundred, where the bilious secretion is carried to its highest degree of activity. The symptoms of acute hepatitis as ordinarily given, are the following: pain in the right hypochondriac region, attended with fulness and some hardness of the part, yellowness of the skin, high coloured, lateritious urine, bitter taste, tongue covered with a yellowish slimy coating on its upper surface, and red at its point and edges, bilious vomitings, pain in the right shoulder, cough and violent febrile symptoms. Now, this concurrence of symptoms may doubtless be produced by inflammation of the pylorus and duodenum, and be hence propagated to the liver, producing irritation and sometimes inflammation, but which rarely ends in abscess; for the hepatic irritation generally yields with the primitive affection of the *primæ viæ*. In most instances then, the hepatic lesion is only a secondary affection, and can be properly treated only by considering it conjointly with gastro-enteritis, and noting the co-existence of symptoms that indicate the complication; and not by viewing it, as authors have heretofore done, as an idiopathic disease, calling for the use of emetics and purgatives, to solicit bilious secretion and disgorge an overcharged viscus: from which procedure, grievous errors have been frequently committed, by aggravating the primitive inflammation. The liver is much more frequently affected with *chronic* irritations than acute disease; produced by chronic phlegmasia of the intestinal canal, in the same way that acute gastro-enteritis produces acute hepatitis. These chronic affections seldom terminate in suppuration, and when they do, it is usually caused by the long, continued use of tonic remedies, purgatives, and pretended resolvents. Tuberculous indurations and calculous concretions of the liver are produced in the same way, and aggravated by the same erroneous methods of treatment, as the more inflammatory conditions of the organ. The spleen also frequently parti-

cipates in these irritations, when it presents morbid alterations peculiar to its texture. Among the causes of these affections, atmospheric heat, especially conjoined with moisture, is one of the most powerful and frequent. The habitual and excessive use of spirituous liquors produce hepatitis, by first inflaming the mucous membrane of the stomach and intestinal canal, to which they are directly applied. Intermitting fevers also produce the same affection by first engendering gastro-enteritis, especially when their treatment has consisted in the use of stimulant and deobstruent remedies.

*Treatment.*—The principles of treatment of this disease are the same as those for gastro-enteritis, and need not be enlarged upon in this place. If purgatives, bitters, acrid substances, such as soaps or sulphureous mineral waters, are ever beneficial, (for they most generally aggravate the disease,) it is by producing a metastasis, or exciting a hemorrhoidal flux, &c., and even in these cases, the general health of the patient is afterwards only preserved and continued by adopting a rigorous and abstemious diet.

**NEPHRITIS.**—Like the other viscera, the kidneys are inflamed by the action of irritants, or by the sympathetic influence of another organ. Of the first class, are external injuries, the action of cold, the use of a too stimulant and nourishing diet, vinous liquors, the abuse of diuretics, &c. Of the latter, are inflammation of the bladder, hemorrhoidal and uterine irritations, and especially the suppression of the hemorrhoidal flux. Any of these causes may produce acute nephritis; but where they exist in a lesser degree, and the disease partakes more or less of a chronic character, it is more apt to degenerate into that form of irritation which produces calculous concretions, and which is usually denominated nephritic colic, when it becomes greatly aggravated and painful.

*Treatment.*—The same principles of treatment apply to both forms of this disease, viz. bloodletting, emollient fo-



mentations, warm bath, mucilaginous diluents, acidulated drinks, &c.

**CESTITIS.**—The diagnoses of a catarrhal affection of the bladder, viz. the seat of the pain, and a frequent inclination to void urine, which is discovered to contain much mucous matter, &c., are known to every physician. The method of treatment does not vary from that of the preceding affection. The author has obtained the most decided effects from the liberal application of leeches over the part. Where the patient will resolutely persevere in the plan of treatment laid down for him, his case may be trusted to an abstemious vegetable diet, and the free use of mucilaginous diluents.

**PERITONITIS.**—*Causes.*—This phlegmasia does not occur so frequently as the other diseases of this class. It is fortunately only produced by certain circumstances which ordinarily happen only to a small number of individuals, but which circumstances appear to me not to be well understood. The conditions of system predisposed to this affection, are similar to those that predispose to the other phlegmasiæ, as plethora, mobility of the vascular system, tendency to inflammations of those parts, and to fluxions and sanguineous discharges, which dispose to inflammatory action. The exciting causes may be divided into three kinds: 1st. External mechanical agents, such as blows, falls, and other injuries on the abdominal region, general commotions of the system, from some injury spending itself, from some peculiar predisposition on the peritoneum, and foreign substances penetrating the cavity of the abdomen. 2d. Mechanical and chymical irritations existing in the individual, as an uterus enlarged from pregnancy, moles or other preternatural bodies in the uterus or abdomen; as hydatids, enlarged ovaria, distention of the colon or rectum from constipation, strangulation of a portion of intestine, violent agitations of the abdominal viscera induced by excessive vomiting, the rigors of intermittents, &c., extravasation into the cavity of the abdo-

men, of bile, chyle, urine, air, fæces, or blood, from rupture of the parts which respectively contain them; and finally, fluids secreted into the cavity of the abdomen, which may act by their quantity producing distention, or by their acrid quality exciting irritation in the peritoneum. 3d. Causes impairing one or more functions of the system, and thus inducing by sympathetic action, an increased action in, and local determination to the peritoneum, as exposure to cold air, immersion in cold water, wearing wet apparel, &c.

*Symptoms.*—The ordinary acute form of peritonitis commences much in the same manner as the other phlegmasiæ, with rigors, heat, pain in the affected part, and other pyrexial symptoms, proportioned to the sensibility of the patient, his vigor and degree of plethora. There is also vomiting, obstinate constipation, and more or less tumefaction or fulness of the abdomen. In the more obscure forms of the affection, some of these symptoms are wanting, especially the heat, and sometimes many of the more violent sympathetic symptoms. In weak habits, and such as have weak digestive powers, there is apt to be much tumefaction of the abdomen, arising in part from disengagement of gas in the intestinal canal, and the accumulation there, of fæces and mucous matter; whilst on the contrary, in vigorous, irritable, and spare habits, there is often no fulness of this part. When it is attended with sanguineous effusion into the abdominal cavity, the pain and sympathetic symptoms are very violent, with signs of loss of blood, as smallness of pulse, cold extremities, and paleness and languor of countenance. *Acute* peritonitis seldom extends beyond the tenth to twentieth day; but the *chronic* form continues a much longer time, (in some instances for years) and is characterized by being attended with little or no fever, with trifling or obscure pain in the abdomen, only to be discovered, perhaps, by some slight shock given to the system, by the jolting of a carriage, a false step, or some accident of this sort, obstinate constipation and fulness of the abdomen with obscure fluctuation, more evident at

night. Sometimes the patient's appetite and digestion continue good, which show that the stomach is little interested. There is sometimes frequency of pulse without heat of skin, except towards night; usually some cough and dyspnœa, more considerable if there be much tumefaction of the abdomen, and especially on taking the horizontal posture. As the disease verges towards a fatal termination, the patient presents a leucophlegmatic appearance, with œdema of the lower extremities. In some instances the disease shows itself, especially where it has been induced by a protracted fever, in the form of ascites, with few or no marks of the inflammatory character of the disease. The patient in some instances dies *hydropic*, in others from *marasmus*, without fever and with little pain, and in others again, after years of suffering, the symptoms become suddenly exasperated, and the disease terminates fatally with the symptoms of the acute stage.

*Complications.*—The severity of the pain of acute peritonitis, is doubtless, sometimes, the cause of inflammation and organic derangement of the brain, marked by delirium, convulsions and coma, and showing after death, evident traces of inflammation in that organ. The most frequent complication is with pleurisy; which complication is indicated by the addition of symptoms peculiar to the pulmonary organ. When the complication is inflammation of the serous membrane of the heart, it is known by the pain seated in that region, by the great agitation and anxiety of the patient, a small, feeble, and irregular pulse, alarming languor and tendency to lypothemy. The complication with gastritis and dysentery, is shown by the supervention of the respective symptoms of these diseases, after peritonitis is known to exist.

*Organic alterations.*—Autopsic examinations of fatal cases of acute peritonitis, have exhibited the peritoneum red, thickened, with here and there eschars extending to the mucous membrane, in some instances covered with a solid exudation in the form of a false membrane, in others, its



cavity contains a turbid, reddish, or limpid fluid, pure blood perfectly fluid, or mixed with coagula ; and in others again, fibrous layers floating in a serous fluid. When the effusion of blood is considerable, the peritoneum is generally neither hardened nor rugous, but simply red and injected with blood. In cases where the disease is removed, adhesions probably take place between the different parts of the inflamed membrane lying in contact. Dissections of fatal cases of chronic peritonitis have shown, besides all the different appearances observed after the acute disease, an abundant effusion of purulent matter, mixed with a white, cheesy substance, and the remains of membranous formations ; the peritoneum mesentery and omentum also greatly thickened, tuberculous, and containing in their tissue much scrofulous matter.

*Treatment.*—Medicine exerts less control over this affection than over those of the mucous membrane, for we have not the advantage of applying our remedies to the part diseased, as in them ; but on the other hand, stimulant applications that act by counter-irritation or revulsion, are often of decided efficacy, and not liable to add to the existing inflammatory irritation. In the treatment of acute peritonitis, the first care is to remove or prevent as far as possible every cause that can irritate the affected part, by directing the patient to remain in a horizontal posture, perfectly still, to prevent any pressure on the abdomen by the apparel or bedding, and to obviate as far as practicable the efforts of vomiting, coughing, convulsive spasms, &c. The inflammatory action is to be abated by blood-letting generally, where there is much strength and hardness of the pulse ; and in milder cases by applying leeches to the abdomen or anus ; by freeing the bowels of their fœcal contents, by mild, oily, mucilaginous, or saccharine cathartics, or enemata ; by giving sparingly of the lightest aliment, and what affords the least excitement ; by exhibiting mucilaginous refrigerant and acidulous drinks, always cold ; and applying to the abdomen, in those cases that occur during very hot weather, and show

great heat of skin and activity of circulation, cold lotions : but under other circumstances, tepid mucilaginous fomentations are to be preferred. As the disease begins to decline, the internal exhibition of opium, antispasmodics, and gently stimulating sudorific decoctions may be had recourse to with great benefit, and also the application to the abdomen of stimulant embrocations, blisters, or gentle frictions, which act by revulsion or counter-irritation. Emetics are very improper remedies in this disease, and are only admissible in strongly marked cases of complication of gastric derangement from accumulation. In the chronic stage the treatment is to be somewhat modified, by giving diuretic medicines, as squills ; attending to the state of the bowels, and preventing fœces from accumulating in them, by the occasional use of mild purgatives ; recommending the dietetic rules laid down for chronic gastritis, and by calling in action the cutaneous surface by employing the warm bath, stimulant applications, blisters, frictions, &c.

In abstracting Broussais' leading doctrines and precepts on the different chronic phlegmasiæ, we have laid less stress than we could have wished, or than perhaps their importance would seem to demand, on those great collateral points of doctrine which have received their elucidation in the course of these investigations, of the various grades of inflammation of the respiratory and digestive organs. For example, that hectic fever is caused by pain ; that is, a sensitive irritable state of the system, or from the absorption of the pus : that colliquative diarrhœa arises from an inflamed state of the mucous membrane of the colon : that hemorrhagy is a modified inflammatory condition of the capillaries of the part, and does never proceed from rupture of them : that both tubercles and hydropic effusions depend upon an inflammatory action of the capillary vessels of the parts concerned, &c. &c. These highly interesting doctrines we have done little more than announce ; to have stated the data upon which they are founded, would be to enter into the minutest details of pa-

thology; and had we attempted to give the reasonings of the author by which he supports them; we should have been in hazard of misrepresenting the grand characteristics and true aim of the work: of leading our readers to view it as partaking of the spirit of preceding systems—a collection of particular facts to support principles already formed: whereas it is in truth, a full and ample exhibition of clinical observation, wholly regardless what hypothesis is supported or destroyed, and conceived and executed in the true spirit of the inductive philosophy.

(To be continued.)



*Essays on Fever, and other Medical subjects, by THOMAS MINER, M. D. and WILLIAM TULLY, M. D. Middletown, Conn. E. & H. Clark, pp. 484. 8vo.*

THERE is no subject in the whole range of medical literature more calculated to arrest the attention of the reading physician than *Fever*. However varied may be the objects of his enquiries, and how much soever he may be interested with the numerous subjects which engage his studies, this always takes precedence. Whether mere curiosity is to be indulged, or the search after truth ardently prosecuted; however different the motives which prompt to investigation—the result is invariably the same with regard to this particular point of enquiry. It is never allowed to pass unheeded, and rarely permitted to escape without animadversion. It makes up so large and so essential a part of pathological science, that almost every medical writer, be the principal subject of his book what it may, feels himself obliged to devote some of its pages to its consideration. That it is a subject of more importance than any other which can claim his attention, appears from the fact that all the various systems of medicine



which from time to time have exercised the ingenuity of the learned, and extorted the admiration, gratified the curiosity, or amused the fancies of those willing to be instructed, have had for their especial object the explanation of its phenomena. Besides, it is this subject which furnishes a criterion by which to judge the talent of public instructors, and a criterion too, which rarely fails when properly applied, to lead to an impartial estimate of the qualifications necessary to form an intelligent or an accomplished author. It is not then a matter of surprise that it should so largely interest the whole medical community.

No profession within the last fifty years can boast of so great a proportion of authors as ours, and no one cause has contributed more to their rapid increase, than the well-directed and violent attack made upon the then fashionable doctrines of the day by the late Dr. John Brown. His opposition, though it was unsuccessful, was not powerless; though it failed to supplant rival theories, it served to check their progress and arrest their spread, whilst it submitted them to the scrutiny of a severe examination; the confidence of the public in the doctrines of the Cullenian school, though not destroyed, was seriously shaken to their foundations; and but for one dogma which was fatal to his theory because contradicted by experience, this original, though eccentric genius, instead of flitting past our astonished vision like a meteor which serves but to render the surrounding darkness more sensible, might still have continued to shed a calm and steady light on many of the dark and hitherto unexplored subjects of pathology.

To the author of the *Elements of Medicine* we are, no doubt, all more indebted than we are willing to acknowledge; if not for a theory of medicine clear, consistent, and satisfactory, at least for its agency in breaking the trammels of sect, which under one form or other has repressed the free spirit of enquiry, and perpetuated errors which had for ages overspread the science, and impeded the march of truth. It is to

be regretted, that he was not permitted to test the value of his principles, by the unerring standard of experience : if he had lived longer, it is probable he would so far have corrected his first impressions (some of which could not have failed to prove themselves defective) as to have presented a beautiful and harmonious system of pathology, which to a great extent would have explained the phenomena of health and disease more satisfactorily than any preceding writer, though its very simplicity would have marked its imperfections : he did not live long enough to erect a perfect structure, but he cleared away the rubbish which had accumulated for ages, and prepared a foundation on which others have raised reputations as imperishable as the principles of the science itself. The language of his work is now familiar to every student, and without feeling ourselves obliged to the author, we frequently avail ourselves of his doctrines in our explanations of the phenomena of disease.

The authors of the work named in the title to this article appear to be perfectly acquainted with the principles of Dr. Brown, and are no doubt aware of the opinions which the public may form in regard to the general tendency of their essays, as calculated to support his doctrines ; for though there is a spirit of independence both in the matter and manner of their execution which seems to scorn the imputation of attachment to any particular theory, yet there is evidence sufficient, that the practical precepts which they inculcate are alone explicable on the principles taught in the *Elements of Medicine*, modified in some small measure by views of the operations of remedies, analogous to those lately taught in the Italian schools ; though from their silence in regard to the Italian authors, it is fairly inferrible that they were not bound to acknowledge any obligation.

The work comprises nineteen essays, fifteen of which are assigned to Dr. Miner, and the remainder to Dr. Tully. As the subjects treated are not necessarily connected, we shall endeavour to give an analysis of such of them as we think

most interesting on account of the practical lessons which they propose to teach, and the reasonings which are adduced in their support.

ESSAY I. *Resolution and Treatment of Fevers.* In this essay Dr. M. assuming the doctrine of the essentiality of fevers contends,

1st. That it is not necessary that they should run their course.

2d. That the chain of morbid actions which constitute it, may and ought to be broken up at its access.

3d. That the attempt to do this should be made whenever opportunity offers.

4th. That if attempted without success the system would nevertheless be prepared for the favourable operation of other remedies, which will be found necessary in the conduct of the cure, provided the means for that purpose are appropriate: and,

5th. That this mean is Calomel either *per se*, or in combination with Opium.

In discussing these several points the author takes occasion to reprobate what he is pleased to term the indiscriminate use of the lancet, although there is no difficulty in perceiving from the whole scope of the book, that the most discriminating use of it is by him. for the most part, thought to be unnecessary; and, not only is he opposed to blood-letting as a remedy in fever; but the whole list of remediate agents which have heretofore been prescribed in order to moderate the violence of re-action, in the language of old medicine, are represented as little less liable to exception. Wherefore it necessarily follows that his treatment differs both practically and rationally from almost every author who has preceded him; for though many persons have adopted a similar plan from a belief in the omnipotent virtues of calomel, it is beyond a peradventure certain that none have ever attempted to defend it on principles precisely such as our author adduces. He assumes as settled, several points which are extremely momentous in conducting the enquiry, viz., that the fever



which is the subject of his remark is *idiopathic*: 2dly, that it is in these days, and in the part of the country in which he resides, always of an athenic character: 3dly, that it is disposed to observe crises: and 4thly, that its cure depends not so much on moderating diseased action, as on overcoming and changing it; on which account it is, that *calomel* is *par excellence* the remedy calculated to be most essentially serviceable; its combination with opium being in many cases rendered necessary in order to insure its complete operation. All that part of the duration of fever usually termed the period of excitement or re-action, our author designates as the preparatory stage, in which it is necessary in case of failure in arresting its course, or of breaking it up, to put the system in a condition to admit of tonic or supporting remedies. But as it is impossible accurately to extract all the opinions of the authors by reason of their commixture with much miscellaneous remarks, we shall give as correctly as we can, the leading features of their doctrines and practice in their own words:

“When the Fever has a typhoid tendency, SLOW AND MODERATE PURGING WITH CALOMEL answers the indications just mentioned, better than any other method. It is the only one of all the common devices for *breaking up Fevers at their access*, which, in my practice, has been attended with *any degree of certainty*. The Calomel mixed with any mild syrup, but not in the form of pill, should be administered in *small doses*—from two to five grains, every two or three hours, according to the circumstances of the patient, till sufficient catharsis is produced. If possible, the Calomel should be given in such doses, and at such intervals of time, as to be retained in the stomach and bowels *twelve hours*, before it produces its operative effects. But if catharsis does not take place in *eighteen hours* at farthest, it must be assisted by *Castor-oil*, or some other *mild vegetable purgative*. At the same time, it is proper to pursue a moderate, diaphoretic regimen; such as pediluvium, tepid aromatic and diaphoretic drinks, fomentations and sinipisms, or epispastics, as the local symptoms require. When the pain in the head is violent, ablister to the *forehead* will not only be of essential service in relieving this particular symptom, but will very much assist the effort at *breaking up* the disease, by superinducing an additional new action. Warm bathing is also an excellent adjuvant in the severer cases. In Putrid-fever (*Typhus-gravior*) when the heat is *above the natural standard*, and the skin

*dry*, we may also resort to cold effusion, with a cooler regimen; there being nothing in the Calomel practice, to interfere with its use, in *truly* hot cases. Cold affusion is however, *with us*, rarely indicated; as in the majority of our Fevers, which are decidedly of the *nervous* type, the heat scarcely exceeds the temperature of health, and is often *below* it, during their whole progress. If the catharsis incline to be excessive, it must be *promptly* checked by Opium; if too sparing, the vegetable cathartic is to be repeated.

When the patient has been previously purging himself injudiciously, with an ill chosen article, or the case is attended with a diarrhœa, or there is reason to suppose that the Calomel will pass *rapidly* through the bowels, or operate *harshly*, or even if there is much irritability of the system in general, it requires a *single medium cathartic dose*, with a sufficient quantity of Opium to stay it, at least, for *twelve* or *fifteen hours*. For a general rule, all the *anomalous* cases of simple Fever, especially those of the low, rapid, and sinking kind, which there is reason to apprehend might terminate fatally in one week, unless prevented by art, require Opium to be combined with the Calomel from the very access, provided any evacuation is admissible; nor are they *safely* managed, unless the patient is kept *uniformly* and *perseveringly* under the influence of Opium to the termination of the disease.

This plan accomplishes much more than is usually done by emetics, or *quick* and powerful cathartics, is less inconvenient, and is much less liable to be *spoiled* by the awkwardness and blunders of nurses."

"There is something *peculiar and specific* in the operation of Calomel, differing from every other medicinal agent; and *the more slow* in its operation to a *given point*, the more obvious is this difference. Its effects upon the stomach, small intestines, lungs, liver, spleen, pancreas, &c. have long been well known and acknowledged, and either from these causes, or something not yet ascertained, its counteracting effect at the access of febrile diseases, under suitable management, is preferable to every other known article. Its moderate use, in small doses during the first stages of Fevers, for the purpose of *changing action* and *preparing* for a subsequent supporting and tonic course, has long been established, and rests on the highest testimony. When any important viscus is particularly affected, its employment is generally indicated beyond dispute. No one article so certainly *counteracts* and lessens morbid action, equalizes the excitement, and *prepares* the patient for the use of tonics. Judiciously used, it overcomes the *irritability* of the stomach, on the one hand, or moderates the *torpor*, on the other, which would otherwise *prevent* their successful employment, and produces a favourable state of the skin, and other excretory organs. By this management, the patient is fitted for the *Bark and other tonics*, *better and earlier*, than in the usual

way. Indeed, whether the Bark is *advantageous* at all, depends almost entirely on the *first week's preparation*. To a neglect of this particular point, we chiefly owe the various and opposite testimony, with respect to the efficacy of this important article. As far as my own experience is concerned, I can positively assert, that I have never had a case of regular simple Fever, the very mildest excepted, in which the Bark and Opium might not be used with obvious benefit, during the stage of exhaustion. By the judicious treatment of the disease, in its first stages, with Calomel, all the desired *preparatory effects* are produced, without materially diminishing muscular or arterial strength, or *wasting the vital powers*.

Every powerful agent occasionally is found to break up incipient disease,—and this circumstance is sufficient for the rash and desultory; but it does not satisfy the careful practitioner. His means must be not only strong and powerful, but it is indispensable that they be *safe*. Happily, slow and moderate purging with Calomel is very certain in its effect in changing diseased action; it is perfectly safe, and is attended with none of those doubtful and hazardous consequences, which often follow profuse bleeding, or drastic emetics and cathartics.

I readily acknowledge, that some anomalous typhoid diseases are, from the very access, so low and rapid, and the powers of life so nearly extinguished, as not to admit of Calomel. In cases where the stage of reaction is *absolutely wanting*, all attempts at preparation are absurd, since they are *not* indicated at all. These instances sometimes occur in Spotted fever, Cynanche-maligna, Dysentery, Pneumonia, and Jail-fever, and are much too low and rapid in their course for Calomel to take effect. If it does produce its specific action, it will be of no more service, than in the stage of exhaustion in regular fevers, where it is well known to be more liable to *coincide*, than to counteract. Nor will they, at *first*, be benefitted by any kind of evacuation. In such *sinking* cases, there is one indication only, and that imperative; *to excite and support the powers of life*, waiving every other consideration. A mistake here is fatal, there being already a state of extreme exhaustion when the physician is first called. One venesection, or emetic, or cathartic, and the patient is gone for ever! The occurrence of such extreme cases is very common, of late years, but they are easily distinguished by any *tolerable* share of discrimination. There are also some other *irregular* cases of Typhus, in which Calomel is of little or no service, and for the management of which, no other rule can be given, than to be ready to meet each symptom *promptly*, as it occurs. But, as my principal design is with Nervous-fever in its *regular form*, it cannot be expected that I shall particularize every possible variety.

However, the object is not *merely to prepare the system* for the



subsequent supporting treatment, in order to sustain the powers of life under a protracted disease. With skilful management, we produce a much more important effect. *We usually obtain a complete resolution, and thus break up the disease itself immediately.* This is the point, to which it is more particularly desirable to turn the attention. It is confidently believed, however surprising it may appear to those who have not witnessed the fact, that this simple process of *slowly and moderately purging with Calomel*, when employed *sufficiently early*, does not fail in more than *one instance in ten*, of breaking up the disease at its very commencement.

It will be readily observed, that it is not *purging merely*, as for this purpose, other articles might answer as well as Calomel, but that something farther is intended. It is proposed to *counteract*, to *overcome*, to *lessen*, or to *change*, diseased action, at the same time that the alimentary canal is cleared. On a little reflection, the possibility of such a combination of effects, from so efficient an article as Calomel, will cease to appear incredible.

Nor is it from the class of cathartics alone, that we expect something peculiar as *counter-agents*, in addition to their general operative effects. Antimonials have the emetic property in common with Ipecacuanha, but at the same time, make a very different impression on the powers of the system. Digitalis and Cantharides are both diuretics, but in every other respect, have very different properties. The same medicine also varies materially in its effect, according to the stage and other circumstances of the disease, and to the dose and manner of administration. Thus, some of our most active emetics, as White-vitriol and Arsenic, in a small dose, are powerful tonics; others, as Antimony and Ipecacuanha, may become diaphoretics and expectorants, according to circumstances. These principles hold true, in a greater or less degree, with respect to most of the efficient articles of the *Materia-medica*. Calomel, when suffered to pass *quickly* through the bowels, can have but little preference, as a counter-agent, to other cathartics.

If however, from the negligence of the patient, we have not been called sufficiently early, or from any other untoward circumstance, we fail of subduing the disease, we have after all, at the end of the process of slow and moderate purging, gone about half through the necessary *preparation*, and have thus anticipated by several days, the *alterative* course, and probably shortened the disease, a week or more.

This is not a matter of speculation and theory merely, but of fact, resulting from repeated trials, during the experience of years. It is true, that like every other efficient method, it requires close *discrimination* and *attention*, with careful management, in order to reap the full advantage, and *ensure* success.

I am aware that cavillers have objected, that the mildness of

the disease, after the use of mercurials, does not result from the treatment, and that nothing takes place, which would not have occurred under the use of any other means. That such a confessedly Herculean counter-agent as Calomel, though at the same time it is perfectly safe and manageable in skilful hands, can have no instrumentality in effects, which seldom or never occur, without medication, and which rarely occur from other plans—*Credat Judæus Apella!*

An important reason of occasional failure (to arrest the disease by the above method) is, that we are not called *sufficiently early*; as it is well known, that after the *two first days* of the preparatory stage, there is no *certainty* of success in producing a resolution, though we occasionally succeed as late as the third, and even the fourth—or there may be an insuperable *prejudice* in the patient to the use of mercurials—or he may not suppose himself *sufficiently sick*, to submit to the *necessary* regimen. From these and similar considerations, we are occasionally induced to waive a practice, which, under existing circumstances, would be liable to mismanagement. Besides, the progress of the disease is sometimes *so insidious*, and the early symptoms *so mild*, that we are induced to let the proper period for administering the necessary medicines pass by; or as a medical friend, using a *nautical* phrase, once said, *there is not breeze enough to steer by*. It is a still more frequent cause of failure, that our patients have, for days, been so injudiciously *tampering with medicine*, as to disconcert every rational plan of management.

To do justice to any method of treatment, the physician must have the *sole* direction of the medication, from the very *access* of the Fever, without being annoyed by officious interference, from any source whatever. Without the *entire* direction and confidence of the patient and his attendants, there is no practitioner who can be responsible, in any disease, for the final result of his practice. The intermixture of parts of different and opposite plans of treatment, is worse than no medication at all; the disease is better trusted to nursing only.

To enforce the expediency of early medication, I would state, that, in the whole course of my practice in Typhus, of all who have applied within the first forty eight hours, after the obvious access of the disease, *two* cases only have proved fatal; and I am pretty confident, that not one has failed, in which the patient had not been *tampering* with emetics or cathartics, previous to my being called.

When from these, or other causes, we have failed of breaking up the disease, the remaining *preparatory treatment* for the first week, demands our attention.

Whatever may be the opinion with respect to *critical days*, it is certain, that all our late typhoid Fevers have very regularly ob-

served weekly, critical periods. It is an old, and very just remark, that in all *regular* diseases of this description, they are *generally* but little benefitted by the *Bark*, and articles of a similar tendency, till after a *prominent critical, or semi-critical change*; that is, not until *morbid irritability* of the stomach and bowels, on the one hand, or *torpor* on the other, is *overcome*, *local pains* and other urgent symptoms *relieved*, and *some time* in every twenty-four hours at least, the *tongue is moist*, and the *skin and other excretories are free*. So imperative is this rule, that I never knew a physician, who was *daring enough to violate it*. Notwithstanding all that the *prejudiced, the ignorant, and the malevolent*, so unblushingly assert to the contrary, I am confident, that *such a practitioner is not to be found in Connecticut*.

There are various means, which are adopted for the purpose of producing this particular state of the system. This kind of crisis, however, by the *usual management*, does not generally take place until the end of the *second week*, when the patient is too frequently *so much exhausted*, that tonics are apt to produce very little effect, or the system is still so *irritable*, that they cannot be borne at all. But it very certainly occurs, at the end of the *first week*, and occasionally some days earlier, especially in the more severe and rapid cases, when the following *alterative course, or plan of preparation*, in addition to the efforts already made in the attempt at *breaking up* the disease, is properly executed.

*Calomel in small doses*, united with *Opium sufficient to stay it up* on the bowels, and also, sufficient to allay *other irritation*, and if the *skin* incline to be dry, and the *heat be much increased*, with *Ipecacuanha*, should be administered, as a *preparatory course*, during the first week. But in *most of the phlegmasiæ*, and in many *low* and irregular cases, the partial crisis, or semi-critical change before mentioned, is produced, and the system is fitted for tonics, in a much shorter period. When this happens, we must enter *immediately* on the *supporting course*, and except in a few obstinate cases of local inflammation, instantly *suspend* the Calomel. It requires as much judgment, to know *when to abstract* this article, as to know *how to administer* it at first.

This compound of Calomel, Opium, and (when necessary) *Ipecacuanha*, in order to produce its full effect, should be given at *short and regular intervals*, so that the system may *constantly be kept under the combined effect* of the whole of the articles. Each *succeeding dose*, therefore, must be administered a *little time before* the effect of the *preceding* has ceased. Calomel, in this form, except in a very few moderately torpid cases, where not previously used, is probably *never serviceable*, as an *alterative, after the first week*; nor, a few local inflammations excepted, even after the *semi-critical change* is produced, however early in the disease it may have taken place. This process is much assisted by infusions of *Serpentaria*,



and other aromatic and diaphoretic drinks, and the various circumstances, which belong to the proper moderate, diaphoretic regimen.

A combination of Calomel, Nitre, and Tartar-emetic, under the name of Rush's febrifuge, was introduced a few years before the *disappearance* of the *phlogistic diathesis*, and was found to excel every thing else, in the *early* and *preparatory treatment* of the diseases of that day. Calomel, Opium, and Ipecacuanha, if possible, have since been more serviceable in our *present typhoid Fevers*. But if we are not called, till near the end of the first week of *simple Fever*, Calomel should not be employed, except as a *slow and moderate cathartic*; for in this last stage, it is nearly impossible to touch the mouth, or to *affect the system*; and it is liable, when it has any influence, instead of diminishing, to *coincide* with the existing morbid action, and thus to *aggravate* the very symptoms, which it was intended to *counteract*.

The minutest circumstances are often necessary to be observed, in order to obtain the full effect of an important article. If they are overlooked, its operation is defeated. Thus, in highly *sthenic* diseases, Calomel will not produce its alterative effects, unless the system is first thoroughly *reduced*, by depletion and evacuation. In like manner, in the *lowest* typhoid diseases, these effects cannot be produced, unless the system is first *raised* by Alcohol and Opium, or what is perhaps preferable, by Capsicum, aromatics, and acrid stimulants. In the phlegmasiæ, we are occasionally necessitated to use these adjuvants, because we cannot often dispense with such an important deobstruent; but as has just been suggested, in some simple fevers of great debility, there is no stage of re-action, of consequence, in such, no *preparatory* course of Calomel is indicated.

Here, *I beg not to be misunderstood*. It is by no means intended, ever to produce complete ptyalism, or, strictly speaking, *any ptyalism at all*. In this case, as probably in all others, this effect is to be avoided, if possible. Not that any material or permanent evil is the consequence; but it is productive of considerable temporary disturbance, without being in itself, of any service. The *cupreous taste*, the *slightest distention* of the gums, or sloughy whiteness, or erosion of their margin, and *soreness* of the teeth, the most *moderate degree* of the peculiar *fleecy appearance* of the tongue, and *fetor* of the breath, which are among the *first visible effects* of mercurials, will be *amply sufficient*. This is the state which it is desirable, the *very low cases* already excepted, to *keep up during the first week*, or till the sub-critical change supervene. By this plan, the patient is prepared for tonics, *a week earlier*, than by the common practice.

By this means, we almost invariably avoid the *exhaustion* of strength, the *black and sordid fur* upon the tongue, teeth, and lips, the *irritable state* of the stomach and bowels, and in general, all

the unpleasant symptoms, which result from the use of *Antimonials, Nitre, effervescent mixture, Cream of Tartar, vegetable acids, &c.*, which are the means *too commonly used* in the preparatory course.

Notwithstanding the assertion, so confidently made, that no *medication is able to shorten* the duration of Fevers, it is as capable of proof, as any thing in medicine, that the foregoing plan, when properly executed, usually *lessens the period* one or two weeks, besides materially moderating their violence."

With a view to combat the debility and its necessary attendants, whether the consequences of the disease itself, or the necessary treatment, Dr. M. lays down the following directions :

"Moderate doses of the *decoction and tincture* of the Bark, given at short intervals, and when the skin inclines to be dry, combined with *Serpentaria*, or similar diaphoretics, mineral acids, Wine, and *especially Opium in small doses, every three or four hours* at farthest, and even every hour, in the lowest cases, constitute the most successful method of supporting the system. In very low cases, diluted Alcohol is preferable to Wine ; and Fowler's Mineral-solution, in doses from five to eight minims, or at any rate, in a quantity *short of the nauseating point*, should be administered every four or six hours. Where the Bark is *worn out*, or when it is rejected by the stomach, this article is a most excellent substitute ; but whoever uses it, without combining it with Opium, will, most assuredly, be *disappointed* in its effects. For a general rule, the internal use of this potent remedy should not be continued, in any disease, longer than *one week*.

I am aware, as my friend remarks, in one of his Essays, that it is maintained by two American writers, on *Materia-medica*, both of the highest respectability, that the *Liquor of the Arsenite of Potassa* possesses no tonic powers ; that when employed in efficient quantities, and for a sufficient length of time, to overcome disease, it usually produces great debility, that it is not adapted to genuine asthenic cases, more especially to true Typhus, and diseases approaching to it, &c.

I take this occasion to observe, that all this is *diametrically opposed* to my own experience and that of my friends ; and that we have been habitually in the custom of using it, for many years past. We have often employed it as a restorative, in general debility, whether the sequel of Fever, or the result of chronic disease ; in *Dyspepsia, Hemicrania, Intermittents*, and more especially in *Typhus, Pneumonia-typhodes, and Spotted-fever* ; and we can affirm, that it promotes appetite, and increases the power

of digestion, that it augments the force and fulness of the pulse, reduces preternatural frequency, and increases muscular strength and nervous energy, with as much *certainty* and *uniformity*, as any other article with which we are acquainted. We are not, however, disposed to dispute about the *term*, which shall be applied to effects of this article, or the station that it shall hold in a system; though we confess, that if such properties do not constitute a *tonic*, we are ignorant what does. For ourselves, we should be inclined to place it at the head of the mineral articles of this class, and to consider it, with Cinchona, as forming the connecting link between the mineral and vegetable tonics. We cannot but impute the discrepancy of opinion respecting this article, to some *defect*, or at least diversity, in the method of employing it. Sulphate of Zinc, Iron, and Cinchona, employed without *suitable* preparation, or in *improper* doses, or in many cases, without appropriate *adjuvants*, would harass the stomach and bowels, and soon lose their character as tonics.

In the method of practice recommended in this Essay there is *quoddam commune vinculum*—a certain common chain, which is liable to fail, when only a single link is weakened.

The various parts of this system of practice have such a close connexion, and have such a mutual dependance on each other, in order to produce a perfect and happy result, that it is proper in this place to pause—to make a brief recapitulation, with a few appropriate remarks.

In the first place, it is obvious, that no *one* portion of the treatment can well be adopted, without having a view to *all* the details. Thus, slow and moderate purging (when it fails of removing the disease) is but a good beginning of the alterative process, and rarely is sufficient, of itself, to produce the semi-critical change, so that the patient can be profited by tonics, unless it is followed, a few days, by a suitable course of Calomel and Opium. Nor is the disease commonly more than half through, when the sub-critical change has commenced. No time therefore is to be lost. The exciting, tonic and supporting course is now to be entered upon with *decision*, and pursued with energy and perseverance; for, if the proper time for administering tonics is passed by, there often arises such an *irritability* of the system, as in a great degree to preclude their use. More inconveniences proceed from indecision on this point, than from almost any other. From improper *delays* in the tonic course, the excitement will many times appear to kindle again, and produce a state, which *may* be mistaken for phlogistic diathesis. The loss of a single day, nay, a single hour, in low cases, is often irreparable.

Besides, the accidental symptoms which are ever liable to be met with, at the critical periods, are to be treated with the greatest promptness. Vomiting, diarrhoea, &c. must be *immediately*



suppressed; *not* by emetics and cathartics, but by *full doses* of Opium, blisters to the stomach, and other auxiliaries. Metastasis of the diseased action to the brain, lungs, or any other vital organ, admits of *no relaxation* in the general treatment; but often requires a vast *addition* to its force and strength, combined with the most vigorous and extensive application of blisters over the parts, with other topical remedies. As soon as the brain is known to be much affected, the upper part of the head is to be shaved, and a *large* epispastic applied.

The symptomatic phlegmasiæ, exanthemata, and hæmorrhagiæ, are, in this advanced stage of Fever, *always* of the asthenic or passive kind.

Hæmorrhages require Alum, Lead, or Capsicum, to be used with a free and bold hand. Charcoal, Capsicum, and Oil of Turpentine, may often be used with success, in tympanitic abdomen. The introduction of a tube into the rectum, frequently removes this troublesome symptom. Aphthæ, gangrenous sloughs, and similar symptoms, require the topical application of the most powerful astringents and antiseptics.

Without overlooking, by any means, the other appropriate remedies, OPIUM is the most efficient, and in fact, *the most indispensable agent* of the Materia-medica, in the latter stage of Fevers. It allays irritation, and regularly supports the system, better than any other medicine, under the untoward circumstances which may supervene. The dangerous and troublesome *Coma*, which often occurs in the last stage of Fever, is more *effectually* overcome, and the counterfeit *torpor*, in *this stage of low Typhus*, is more *easily* counteracted, by the *regular* administration of Opium and Alcohol, than by any other means whatever. Their occurrence is more rare, when these articles have been previously used, than under the common treatment. But to produce its full effect, it is absolutely necessary, that each succeeding dose of Opium should be administered, *before* the exciting effects of the former, have *passed by*.

Much attention is necessary to this subject. When managed in this way, Opium becomes the *most efficient and safe exciting power* of the whole Materia-medica. By an *unsteady and irregular* administration, and at *too long intervals*, or in *improper* doses, it is, on the other hand, one of the most precarious.

The true standard for the administration of Opium, as a supporting agent, is to *increase* the dose, until the *febrile irritation, restlessness, and anxiety*, are subdued, and tremors and subsultus controlled. In the severe cases, *Coma* supervenes upon this state of irritation, to a much greater degree, where narcotics *have not been employed*; and when they have been previously used, and are abstracted, under the *false notion*, that they produce this symptom, it is *invariably* aggravated. I have witnessed the truth of

this, in numerous instances. No medical fact is capable of *more ample* demonstration, at the bed-side of the patient.

The disputes on this subject, arise *altogether* from the method of management. No person, who has not used Opium *habitually*, during the stage of exhaustion in Fevers, can reason *correctly* of its effects. This, like all other subjects, must be decided by testimony, and *true* experience. Here, as was formerly mentioned, *negative* testimony, or *false* experience, arising from a *wrong* theory, or an *irregular* use of the article, amounts to nothing. The testimony of that physician, who has confined his experience of White vitriol, to doses of *ten grains*, is of just as much force, against its tonic powers, when it is used in doses of *one grain*, as that of those, who have never made a *fair trial* of Calomel and Opium, in the manner advised in this Essay.

Much is said of idiosyncrasy—but when the patient is *ignorant* of the medicine, which he is taking, I never knew a case of Typhus, that would not admit of Opium in the stage of exhaustion, when it was given in small doses, and *regularly* repeated, every three hours, or oftener. It is not the Opium, but the *manner* of administering it, which produces disturbances, and troublesome *secondary* effects.

As a general rule, to overcome *irritability*, with subsultus, spasms, and its other various symptoms. Opium should be given in *full* doses, at intervals of three or four hours; for, when the dose is not sufficiently *large* to subdue, it seems to increase these symptoms. But, when it is used as a *supporting* agent, it should be administered in *small* doses, once in two hours; and in extreme cases, it is sometimes necessary to repeat it, *every* hour.

It may be proper also to remark, in this place, that where debility is attended with *irritability*, our *principal* reliance is to be placed upon Opium; but where debility is attended with *torpor*, our dependence must be placed *chiefly* upon Lyttæ, Capsicum, and other acrid stimulants; yet Opium in *appropriate* doses is essential, in either case. Alcohol, Mineral-solution, Oil of Turpentine, and a frequent succession of Blisters, are beneficial in severe cases of both varieties."

The remainder of this essay is taken up with details of the author's experience, and some reasonings to shew the success as well as the philosophical propriety of the above method of treating fever; and the reader is requested to bear in mind, that they apply more especially to that disease usually denominated *Typhus mitior*. The great error which Dr. M. thinks has controlled the practice of the American physicians, is the belief that the fevers of this country are of a sthenic or

inflammatory character ; whereas his experience for the last fifteen years is decidedly opposed to this notion, and his practice has been governed by an opinion of a directly opposite character. He believes that much of the confusion of modern medical practice has arisen from practitioners neglecting to attend to the peculiar *diathesis* which may accompany inflammation ; he takes it for granted, that during the general prevalence of an asthenic diathesis, by which we presume he means the directly debilitating effects of a peculiar constitution of atmosphere, all inflammations are of the passive kind. The following passages we presume will give the reader a more comprehensive view of our author's opinions than any other of the same length in the volume.

“ In the part of the country where I reside, I have not witnessed more than *three* decidedly active, inflammatory cases, either in my own practice, or in consultation, for the last seven years. Even the *local inflammations* attending the Phlegmasiæ, are uniformly of the *passive kind*.

It is not engorgement or congestion, as some theorists would believe, but actual inflammation of the vessels and solids, which exists in typhoid Pneumonia, Cynanche-maligna, &c., without any sthenic diathesis whatever. *Post mortem* examinations, though they may show the existence of inflammation, can by no means ascertain its nature, whether it was active or passive, sthenic or asthenic. I have frequently seen *laudable pus* produced in local affections, during as asthenic a disease as ever existed ; especially, when the patient had been properly supported with Opium, Alcohol, and Cinchona.

Much of the confusion of modern practice, arises from overlooking the *peculiar diathesis*, which attends inflammation. During the prevalence of a *very general, asthenic diathesis*, acute Rheumatism, Quinsy, Mumps, and even burns, wounds, and contusions, have no *true* sthenic or phlogistic character, and are most successfully treated upon a counteracting, exciting, and supporting plan. The inflammations of the coats of the intestines in Dysentery, of Erysipelas, of Gout, of Carbuncles, of Phlegmons in the vicinity of blisters, and the affection of the extremities preceding the gangrene of aged persons, are attended, for the most part, with an asthenic state of the system, and of consequence, have no phlogistic stage, but are passive, or asthenic, from the very *beginning*. To these should be added, the passive inflammations of the brain, from the acute stage of Hydrocephalus, to the worst cases of Spotted-fever.



It is folly to quarrel with the word *inflammation*. It has always been used to mark the local affection in such diseases, and it only confounds the student, to introduce new terms. Teach him to distinguish the attending diathesis, and the other indications, and every difficulty vanishes. Another point is of equal importance to be ascertained—the heat and irritation, which not unfrequently are met with, in asthenic diseases, must never be confounded with the genuine phlogistic heat of Synocha, or the *active* inflammation of sthenic diathesis.

It is a very pernicious kind of therapeutics, that principally treats inflammations according to their *seats*, as demonstrated by morbid anatomy. It is true, that in the *local* affections, which come within the province of the surgeon, this subject cannot be too minutely investigated; as on an accurate knowledge of the seat of disease, most of the success of operations depends. But in *general* diseases, in which the practice of Physic is mainly concerned, the question is not, by any means, confined to the inflammation or lesion of this, or that, particular membrane, or coat, or muscle. It is the *nature* of the inflammation, the *quality* of the morbid action, not merely its *quantity*, or *precise seat*, and especially, the general state of the system, from which the indications of cure are to be deduced. The fashionable, fine spun pathology of the present day, amuses its professors in chasing after shadows, instead of seizing the substance. Inflammations and other lesions of the *same organ*, according to their quality, and the *diathesis* of the system, require various methods of treatment. Some inflammations of the tonsils demand astringents, or Capsicum, from their very access; others, demulcents and emollients. One form of Dysentery is treated by Opium and Ipecacuanha; another, by Tamarinds and Cream of Tartar; a third, by large doses of Calomel and Opium. Some puerperal Fevers are subdued by Oil of Turpentine, and other stimulants and tonics; others by venesection, and the antiphlogistic regimen. Neither the station which a disease holds in a system of nosology, nor the organs or membranes, in which it is primarily seated, nor the *quantity* of morbid action, can throw much light on the *kind* of practice.

*“L'expérience nous apprend journellement, qu'il est des phlegmasies, qu'on guérit par les émollients; d'autres, par les résolutifs; d'autres, par les narcotiques, d'autres, par les révulsifs.”*

I can confidently assert, that the **STRONG-HARD PULSE**, the only *absolute* criterion of phlogistic diathesis, seems *never to occur*, in any stage of our modern Fevers. The whole number of cases, which are considered as phlogistic, or *actively inflammatory*, by superficial observers, probably for want of a *proper standard* of comparison, will be found, on *close examination*, to be hot subputrid Typhus, attended with the *small-wirey* pulse of irritation only, or the mere *tumid, inflated, gaseous pulse* of authors, which

yields at once, on moderate pressure, is *made worse* by antiphlogistic means, and is *improved* by a tonic and supporting course.

As a motive to extreme caution in practice, we should recollect that when moderate typhoid Fevers, especially of the *torpid* kind, or of the *sub-putrid* type, are treated on the antiphlogistic plan, the *deleterious* effects are frequently not very apparent, for several days; but arrived at a *critical period*, the patient is liable to *sink at once* into the arms of death, before his physician has scarcely dreamed of his being in danger. If an error is not *visible* in twenty-four hours, most physicians *rest contented*, that the practice is good. A very great fallacy. In Pneumonia-typhodes, of the sub-putrid or the sub-nervous type, when the subject is of a robust constitution, however *absurd* the treatment, he *rarely* fails before the *fifth* or *seventh* day; and oftentimes survives till the *ninth*, in defiance of his disease, and the physician.

When this disease first re-appeared, as an epidemic (in 1810-12) many of the best physicians in our country, mistaking it for a genuine, active Pleurisy, were confounded with the sudden result; and that often, within a few hours after they had pronounced the patient convalescent. I have witnessed the same accident, repeatedly happening, in the practice of the present antiphlogistic physicians. This is, indeed, 'running upon a lee-shore, under full sail!'

How soon the phlogistic diathesis may return, and the ancient depleting and antiphlogistic regimen be again proper, it is in vain to attempt to predict. But, while our Fevers continue to be exclusively typhoid, or asthenic, the general mode of management recommended in this Essay, for the *regular* cases, until some more ingenious method of practice shall be invented, will insure the highest prospect of success—will conduct the patients safely through the dangers of these diseases. It promises much the most *speedy* and *complete* convalescence. The cases, that are not cured by resolution, in the first week, *generally* continue no more than a fortnight; it is extremely rare for them to be protracted longer than three weeks. The Fevers of forty, fifty, and even sixty days, under this practice, are *unknown*. I have had frequent opportunities of comparing the results of different modes of treatment, in the same neighbourhood, and if possible, have underrated the advantages of the alterative and supporting plan."

Essay second is entitled *Medical authors are rarely practical men*. In which Dr. M. undertakes to say, though he offers no direct testimony, that medical publications are generally the speculations of the young, who have nothing to do but to write, or the *recollections* of the old, who are too infirm to be extensively engaged in practice, or the theories of

those, whose business it is to teach medicine ; and he thence infers that for the most part they are deficient in that practical information which alone should stamp a value on their productions. It is written with considerable severity, and appears to have been intended not so much for Physicians, as the public at large ; many of the remarks are vituperative, and some unnecessarily caustic. As we have no wish to restrict the circulation of the book, but would heartily recommend it to every person sufficiently read in his profession to scrutinize its doctrines, we shall not quote from it.

Essay third, fourth, and fifth, on the diseases of the river Connecticut—the fallacy of popular reports on medical subjects, and medical facts, are severally instructive ; they contain the results of the author's experience, on the several subjects embraced in their titles ; and such of them as have relation immediately to the treatment of disease, are made to illustrate the doctrines embraced in the first essay—they are not dissertations, but relations of facts accompanied with considerable remark, in which the author appears most generally in the first person singular, deals out his opinions without fear, favour, or affection, and in a manner we think calculated to jeopardize his popularity with his medical brethren.

We are obliged by necessity to pass over the three succeeding essays, in order to dwell with a little more minuteness on the ninth, in which Dr. M. takes up the subject of *pulse*, and we are free to confess that it is to us the most interesting part of the volume ; the style of the paper is much less captious than any of those which precede it, and bating some few ill-chosen and harsh epithets, is unexceptionable ; the student cannot fail to derive information from the dense and connected view given, although here, as well as elsewhere, he will not fail to perceive the bias of the author. The quick and slow, the hard and soft, the frequent and the rare, the full, strong, weak, regular, and intermittent pulses are all described with a degree of precision that scarcely admits of being mistaken, and their various combinations to which have been



given specific names, such as *undulating*, *tremulous*, *gaseous*, *bounding*, *vermicular*, &c. are perhaps as accurately defined as the present state of our knowledge will admit, though we incline to think that much more consequence is attributed to this particular diagnostic of disease, than the experience of most of our modern physicians will warrant. The depressed, oppressed, or suffocated pulse, of which we latterly have heard so much in diseases of the congestive character, though admitted to obtain, is nevertheless supposed by our author more liable to be mistaken than some others, and requires to be judged in connexion with attending circumstances.

“A pulse is said to be *depressed*, *oppressed*, or *suffocated*, when it is apparently weak and small, and as is said, sometimes quick, small, and hard (*doubtful*), but is capable of being rendered stronger, and fuller, by suitable depletion and evacuations. It is to be distinguished from what it appears to be, by the accompanying symptoms, together with a consideration of the prevailing diathesis. In all probability, it is never to be found, when the general diathesis is asthenic. As, however, febrile diseases of a typhoid character occasionally occur, when the diathesis in general is sthenic, it is possible, that in some instances the true nature of the pulse may be doubtful. Such cases of Typhus generally take place in debilitated subjects, and in situations where Intermittents or Remittents might be expected, and are almost always of such a character, as to receive no injury from the abstraction of five or six ounces of blood, during the flow of which, if the pulse is in reality depressed, its fulness and strength will begin to be augmented; but if, on the contrary, it is of an opposite character, it will either not be changed at all, or it will be rendered, for the time being, unequal and fluttering. In every case of supposed depressed pulse, the Physician should pay particular attention to the state of the artery, during the flow of the blood, and regulate the degree of depletion accordingly.”

Our author is undoubtedly correct in his descriptions and definitions of the various kinds of pulses, but it is not so clear that his remarks in their application to particular diseases will be considered perfectly unexceptionable; though our limits are narrow we will extract the following:

“A frequent, quick, soft, and small pulse combined, always denotes the asthenic diathesis, being absolutely incompatible with any

degree of the real phlogistic state. As the simple Fevers, unlike the Phlegmasiæ Exanthemata, &c. are not liable to vary in diathesis, some degree or combination of the varieties of pulse under consideration, always attends Nervous-fever, Jail-fever, Putrid-fever, and probably Yellow-fever, and genuine Intermittent. It also characterizes and affords unequivocal diagnostic marks of the asthenic states of the Phlegmasiæ, Exanthemata, and Profluvia. It occurs likewise in any disease of debility, whether chronic or acute. The same degree of frequency, quickness, softness, weakness, &c. does not in every disease indicate the same degree of deficiency of vital power. For instance, in acute asthenic Rheumatism, there is usually more frequency and quickness, than is common in other cases, attended with no greater exhaustion.

It need not be repeated in this place, that this pulse, and this diathesis, always contra-indicates depletion, and free evacuations; and after such preparation, as the respective cases may require, it indicates support, such as is afforded by the simple excitants, and several of the narcotics, tonics, &c. These principles, though not understood, or practised, by that servile herd of imitators, which constitute the great body of indiscriminate practitioners, are nevertheless expressly recognized, by the ablest men, and even several of the ultra-phlebotomising and antiphlogistic class. Thus, Clutterbuck observes, '*where the pulse is extremely soft, and compressible with the slightest force, I hold blood-letting to be altogether inadmissible.*' Indeed, he considers '*the full and bounding pulse*' to be somewhat equivocal, as a reason for bleeding. J. M. Cox, the author of Practical Observations on Insanity, who probably ought not to be ranked with this class of practitioners, observes, that the action of the heart and arteries may be *preternaturally increased in consequence of debility*, which state he would remedy by Cinchona, and a generous diet; and he speaks of *symptoms of excitement, that result only from exhaustion, and are increased by persisting in a system of evacuation.*

The frequent, quick, small, and hard, or wirey pulse, though too frequently considered as indicating a phlogistic state, denotes nothing more, than the addition of *irritation* to exhaustion. This pulse is often found in sub-acute Pneumonia, Phthisis, sub-acute Rheumatism, idiopathic Hectic, and Putrid and Yellow-fevers, when they have been injudiciously managed. I have often seen it produced by an injudicious use of Calomel and saline cathartics in Dysentery. In such cases, the entire abstraction of the irritating medicine, and the substitution of Opium, and other articles of similar powers, generally remove this symptom entirely.

Excessive and dangerous doses of the irritating essential oils, such as those of Gaultheria-procumbens, Betula-lenta, &c. usually occasion this kind of pulse. In these cases, as the article usually produces free vomiting and purging, and by these means, it is

commonly evacuated, one would think that common sense, as well as observation and experience, would point out the employment of demulcents, Opium, &c. and yet it is to be feared, that this wirey hardness of the pulse, though accompanied with extreme frequency, quickness, and smallness, has too often conjured up in the mind of the Physician, that Hydra inflammation, and not only prevented the employment of the appropriate means of relief, but has even been the means of precipitating the patient into the grave, in consequence of the adoption of additional evacuations, and other reducing and antiphlogistic measures. It is true, that depletion will occasionally lessen this kind of hardness, because it still further exhausts vital power, so as to leave no excitability for the irritating cause to act upon.

The false Brunonian principles of indirect debility would lead to an equal error in practice. The truth is, that many of those articles called stimulants, do often *increase* excitability and vital power, or *susceptibility* to impression from other articles, instead of exhausting it; and in such cases, the proper remedies would both accomplish this, and allay irritation at the same time.

The infrequent and slow, or morbidly natural pulse, in some form of combination, is often found in Darwin's Paresis-irritativa, Good's Synochus-soporosus, Sydenham's Peripneumonia-tha, the Spotted-fever of Hartford, and some cases of Cynanchemaligna. It occurs not unfrequently in Apoplexy, more especially of the serous sort (or that which occurs in leucophlegmatic habits, and is attended with a pale countenance) in Hydrocephalus, concussions of the brain, and other affections of the head, whether idiopathic or symptomatic, whether from external violence, or internal causes. It is likewise found in Icterus, and many other diseases connected with a chronically disordered state of the liver, and probably of the spleen, in some cases of the Colic, Hypochondriasis, and in diseases where the stomach and bowels are torpid, and much coated with mucus. It is more rarely found in Lithiasis, in Hysteria, and in the other purely spasmodic and convulsive diseases. Preternaturally infrequent, and slow pulses are usually irregular. In many cases of intermission, it is supposed that the beat is occasionally not altogether wanting, but only so weak, as to escape observation. The purely intermittent pulse is, in the abstract, and unconnected with other symptoms, of less consequence, in diagnosis, than most other irregularities. It belongs to old age. Some persons always have an intermittent pulse in disease, however slight, though not in health; others, always have it in health, but not in disease. A knowledge of these peculiarities is useful, as a change of the pulse, in this respect, during disease, to the natural state, frequently precedes a critical change, and if it continues, indicates convalescence.

None of the various irregularities of the pulse, unless, perhaps,



the intermittent, are liable to occur in genuine sthenic or phlogistic diseases ; but they are always found in those cases, in which there is a greater or less degree of diminution of vital power. Other symptoms must always be accurately considered, and the indications be made out accordingly.

To the general principles thus far laid down, respecting indications from the pulse, there is but one exception. This is to be found in the depressed pulse, which commonly appears small and weak, and sometimes as is said (*doubtful*), quick, small, and hard. The rules for discriminating this pulse have been already given. The cases in which it is found, and the indications to be deduced from it, are the same, as from the strong and hard pulse. The combination of quickness, smallness, and hardness, is supposed to occur most frequently in active gastric and enteric inflammations. Without here stopping to question the correctness of this opinion, to the truth of which there would *seem* to be adequate testimony (though upon no subject have there more frequently been fatal mistakes) it is to be feared, that the almost universal prevalence of the idea, that these inflammations are *necessarily* attended with this pulse, has prevented all investigation of diathesis in these diseases, and consequently led to indiscriminate practice. Suffice it in this place to say, that *genuine* asthenic inflammations of the stomach and intestines do *actually* exist, which do *not* require antiphlogistic treatment, and which recover with *much* greater certainty under a different management.

I come now to the strong, full, and hard pulse, the only *certain*, unequivocal, and invariable sign of the phlogistic diathesis. This pulse can never be mistaken, whatever may be our standard, our theories, or our prejudices. To a person unacquainted with this pulse, that which is really weak, soft, and small, in a moderate degree, may, in comparison with those which are so, to a greater extent, appear to possess actual strength, fulness, and hardness ; but this, as it constitutes one extremity of the scale, must, of necessity, be the only standard of comparison upon these qualities.

The idea of *increased action*, or *augmented excitement*, is attached to the strong, full, and hard pulse, as well as to the frequent. It is this state alone, to which these phrases can in strict propriety apply ; and yet, as such a pulse is so rare at the present day, and as the superficial, the ignorant, and the careless, are so liable to mistake, without a standard perpetually under their observation, it is believed, that these ideas are referred to *frequency*, in by far the greatest proportion of the cases. It is much to be regretted, that not only these, but that every other merely theoretical expression, cannot be for ever banished from medical use. Should it be said that a particular case is attended with a strong, full and hard, or frequent, quick, and weak pulse, who could be in doubt of the import of such language ? But when *increased action*, *high excitement*, &c. are mentioned, the meaning of the speaker or

writer must remain problematical, unless something happen to be said in connexion, which is capable of explaining the meaning.

The strong, full, and hard pulse, belongs to Synocha, and all the genuine sthenic Phlegmasiæ, Exanthemata, and Profluvia; and it is almost superfluous to say, that it indicates free, and not unfrequently, repeated depletion, copious evacuations, refrigerants, spare diet, and all which constitutes the antiphlogistic regimen. These principles are usually the first inculcated in therapeutics, and they generally occupy a larger share of the attention, both of the instructor and pupil, than the whole of the remainder of this branch of medicine. That they are of high importance, I trust no one will be disposed to deny; but I have the evidence derived from many years of observation, upon the prevailing practice of the present day, that there are other points equally important—that there are diseases, and of frequent occurrence too, for which ‘bleeding, vomiting, purging, sweating, and, in a word, every mode of evacuating the vessels of their fluids, and impoverishing the solids, which the ingenuity of man can contrive or invent,’ are not the best remedies.”

The next three Essays are on the several subjects, *stage of fever, type of fever, and crisis*, to which we can only refer the reader for some interesting and curious information. The article *Diathesis*, is calculated to create more than ordinary interest, in as much as the author lays his chiefest stress upon a knowledge of it, and considers it more essential in the treatment, than even the symptoms of disease; and that inflammation itself is liable to be mistaken, without due attention to this point. “Teach a student,” says he, “to distinguish the attending diathesis, and the other indications, and every difficulty vanishes.” Dr. M. considers the term as synonymous with condition, or state, as applied to the system in a pathological sense, it is therefore fairly inferrible that it must vary in different constitutions, not only in degree but in character; but he proceeds a step further, and presumes that its character may be, and often is, determined by the influence of epidemic causes, which are general in their operations; and from this principle proceeds to reason that local inflammations or phlegmasial fevers, when this general condition is asthenic, are always of a passive nature, requiring in their successful treatment remedies calculated to excite, support, and strengthen the system. It will readily be perceived that this doctrine

trust in its applications cut very deep into the generally received therapeutics of the day in which we live, and if true, fix the stamp of reprobation on the practical precepts of many of the most intelligent physicians, both in this country and in Europe, whose talents have heretofore entitled them to be considered the lights of the profession. Dr. Miner, and his friend Dr. Tully, fully admit it, and their practice is in accordance with the doctrine which it teaches; indeed so far does our author carry the principle thus adopted as to say, *that for all practical purposes there is no utility in the distinction of direct and indirect debility*; as they have the same characteristics, are governed by the same laws, and require the same treatment, whether induced by starvation or the long continuance of fever, whether by fire or frost!"

It is certainly not obvious, that the direct operation of atmospheric morbid causes is calculated to produce a diathesis of a general character, be its nature what it may; and if it was, it is fairly to be presumed that it would be controlled and modified so as to afford an infinite variety of this condition, through the combined operations of age, temperament, habit, mode of living, previous disease, &c. which would render the cases of exception much more numerous than those subject to the rule; hence the principle itself, unless very much restricted, is dangerous in practice, and liable to be greatly abused. For the benefit of such of our readers as have not an opportunity to consult the book, we will transcribe the following passages in connection.

"By Diathesis is intended some peculiar disposition, condition, or state, of the whole, or a part, of a diseased animal system. It is often used as a term synonymous with predisposition; thus we say, such a patient has an arthritic, a strumous, or a phthisical diathesis. But, in this Essay, the two most important points, to which it refers, are debility, or an asthenic, or typhoid\* state, and a sthenic, or phlogistic, or active inflammatory state.

\* The term *typhoid* is much more limited than *asthenic*; it being confined to acute febrile diseases. Asthenic is a general term, applicable either to acute or chronic, universal or local diseases.



By debility, or an asthenic, or typhoid state, is intended, a deficiency of strength of action, caused by a deficiency of vital power in the whole, or a part, of a diseased animal system, and essentially attended with a *weak* and *soft*, or *small* and *wirey* pulse, which is liable to be increased by depletion, evacuations, refrigerants, and other reducing means. Debility relates principally to the *circulating system*; since, where this is deficient in vital power and strength of action, the other parts of the system, either immediately, or before long, are found to languish. Debility is sometimes attended with irritability, and sometimes with torpor. For practical purposes, there is no utility in the distinction of *direct* and *indirect* debility; as it has the same characteristics, is subject to the same laws, and requires the same treatment, whether produced by starvation, or the long continuance of Fever, whether by fire, or frost.

A sthenic or phlogistic state, is directly the reverse of debility, and of consequence, consists in increased strength of action, attended by an essential increase of vital power, which is especially manifested in the *circulating system*, by the presence of a *strong hard* pulse. It is invariably augmented by such stimulants as Alcohol, Cinchona, &c.

Violent pain in the head, back, limbs, or viscera, furious delirium, and extreme restlessness, considerable heat and dryness of the skin, prominent and visible throbbing of the carotid arteries, laborious respiration, suffusion of the eyes, flushed face, and local inflammatory affections, especially of some internal part, with muscular strength, even *greater* than in health, have all been supposed, but very *erroneously*, to indicate a sthenic diathesis. It is confidently believed, that each of these symptoms individually, and even the whole collectively, without the strong hard pulse, are often found in completely asthenic cases. Indeed, most of these symptoms are occasionally combined with the struggles of the dying.

By prostration, depression, oppression, &c. is intended, a deficiency of strength of action, in cases where there is a real increase of vital power. This state is aggravated by stimulants, and relieved by depletion and evacuations. Prostration of arterial strength is more generally found, at the commencement of *irregular* cases of genuine sthenic or phlogistic diseases, and occurs very often, in the muscular system, in regular cases. Prostration of this kind need not be mistaken, as it occurs at times, when the general diathesis of diseases is most highly of the sthenic kind. At the *very* commencement of asthenic and truly typhoid Fevers, there is *always* a greater or less degree of *real* debility.

There is also such a thing as a considerable degree of *prostration*, instead of much *exhaustion*, in the early stages of some irregular typhoid diseases, so that the debility may *appear* to be

greater than it is in reality. It occurs, in particular, in the sub-nervous or torpid variety of the nervous type. It is attended with but little sense of languor or pain, or even of indisposition; and is marked by a peculiar torpor, of one or more, of the vital organs. Such cases manifest but slight distinctions of stage, and are not easily affected by ordinary medicine. Depletion, and drastic and refrigerant vomiting, purging, and sweating, injure; but quick emetics of Zinc, Copper, Sanguinaria, &c. frequently excite sensibility, and rouse the patient. After the operation of these, a much less quantity of excitants and tonics will support the patient, than might otherwise have been demanded. On the other hand, in the most sinking diseases of the nervous and putrid type, we frequently meet with cases of Cynanche-maligna, Croup, Pneumonia, and Dysentery, in which this treatment only sinks the patient, without the least relief. This is exhaustion; and it is often as complete, when the physician is first called, as in the last stage, and is out of the reach of any kind of evacuating or depleting agents. A single enema reduces.

To attempt to illustrate a subject, which has been so much confused, is no easy or desirable task. The very similes which we use, being not always exactly parallel, are among the sources of debility. Prostration in Synocha, is torpor without debility. The excitability is not deficient, but only latent, and it is brought into action, by the impression made by depletion and evacuation. Prostration in Typhus, is also torpor; and when the debility, which, in some degree, always attends this disease, is not great, it is overcome by evacuants; but, when extreme debility exists, whether there is torpor or not, powerful excitants must be first used, and even then, evacuants require the greatest caution. Upon the principle of counter-irritation, moderate debility and moderate torpor are often best removed by the very same agents; as in the instance of Calomel cathartics, or appropriate emetics. Moderate stupor from Opium, is torpor; the excitability becoming latent, but not materially impaired. Opium, in hazardous doses, produces exhaustion of vital power, and destroys the excitability. Coma, in the last stage of Fever, always arises from exhaustion. Excitants and tonics appear to act upon a two-fold principle; first, by stimulating the *latent* excitability, and calling into action the *existing* vital powers; secondly, by furnishing a new *pabulum vitæ*, which removes the debility. The inability of the system under exhaustion (to adopt the simile of an able author) resembles a weak or broken spring; but in prostration, the spring has not room to play. In the former case, a man has not sufficient strength to perform the offices of life; in the latter, he is a prisoner, bound in chains. The imprisonment, however, may be continued so long, or the chains may be so heavy, as to destroy his strength. Thus, prostration or oppression naturally ends in exhaustion.

The distinctions of asthenic and sthenic, apply equally to the Phlegmasiæ and Exanthemata, as to simple Fevers; nor is the etymological signification of the term *inflammation*, to be more regarded, at the present time, than that of *fever*.

That there are cases so near the line which separates the two diatheses, as to be with difficulty referred to either, occasions no embarrassment in practice; because it is the tendency of disease to produce diminution of strength, so that every instance of Fever, which, at its commencement, happens to be neither positively sthenic or asthenic, is inevitably reduced to the latter, after the employment even of the least reducing preparatory measures. In fact, genuine Synoncha, if not broken up at its access, or if it does not terminate the first week, ends subsequently in an asthenic disease.

There can be no possible reason given, why the efficient causes of diseases, should not primarily produce diminished strength of action, and diminished vital power, as well as prostration. But whether a reason can be given or not, there is '*no argument like matter of fact*;' and it is certain, in defiance of all theory, that diseases do exist, and have existed from the days of Hippocrates, which, from their very commencement, and throughout every stage, are attended with absolute debility, as above defined, and even occasionally to such a degree, that Wine, and all the moderate stimulants, prove absolute atonics; though most of these very cases are capable of being relieved, and eventually cured, by more efficient exciting agents. This plain fact is supported by the amplest testimony, of judicious and discerning writers, and is confirmed by the soundest experience of living practitioners; nor can it ever be set aside by the most plausible and ingenious reasoning, or the most extensive negative testimony, and negative experience, of any man, or body of men, who have not discrimination enough to have observed such cases."

The essay on coinciding and counteracting agents will be to many of our readers new, and such it cannot fail to inform; it contains some curious information which in the further progress of the science, we have no doubt will be found to be of invaluable importance in the treatment of diseases. The terms in which the principles are stated, are rather too general and undefined to lead to any precise results, and the experiments are yet too limited to permit practical lessons to be deduced from them. The new Italian doctrine of *contra-stimulus*, some notice of which will be found in our two last numbers, has its foundations in the same general principles,



though the precision in which the doctrine is expressed, its grand outlines, and the general rules for its practical application will be found to differ immensely from the view here taken. The reader may form some idea of the drift of the remarks from the following passages :

“ The subject of *the concurrence of the action of medicine with the existing morbid action*, is in a great measure new, and has not hitherto attracted that attention, which its high importance demands. To do it any kind of justice, would require a much longer dissertation, than the plan of this work admits.

It is so generally agreed among medical men, as to be taken for granted in all these Essays, that there is a vital power, a living principle, which pervades every animated body, and that it is regulated by very different laws from the mere chemical and other philosophical attractions and repulsions, by which inanimate matter is governed. When any of the functions are performed irregularly, or imperfectly, there is a derangement in the operations of this vital principle, which may be so great, as to end in its extinction. The irregularity and imperfection, with which the functions are performed, according to their several associations, constitute the various diseases, or combinations of morbid action, to which man is subject. The peculiar lesion of the solids and fluids, which is the cause of the derangement of their functions, though it has been the source of innumerable hypotheses, for the most part, is entirely beyond our investigation.

Disease consists rather in the *quality*, than in the *quantity* of morbid action ; yet, this quality may be *changed*, and the quantity *increased or diminished*, to every possible variation.

A complete knowledge of the agents that *counteract*, in contradistinction from those which *coincide*, or *concur*, with each particular diseased action, and *skill* to apply them, combined with accurate information of the various means which are necessary to *reduce* excessive action, and also of those which *excite* and *support* the powers of life, would constitute a perfect practical physician.

All theory, therefore, which diverts the attention from these points, whether derived from the false hypothesis, of direct and indirect debility, of Brown, or the systems of Boerhaave or Cullen, must prove fallacious, when put to the test of experience, and, as far as it respects practice, must be attended with destructive consequences.

‘ Quid Scammoniae radix ad purgandum, quid Aristolochiae ad morsus Serpentum possit, video ; quod satis est ; cur possit, nescio.’ (Cicero de Divinatione, Lib. II.)

The most pernicious theories are those, which attribute disease *exclusively*, either to increased action on the one hand, or diminished action on the other ; or that consider all fevers to be the same in *kind*, and all inflammations to be the same in *kind*, and consequently, that the treatment must be the same in *kind*, and only vary in *degree* ; as if all maladies were to be cured by depleting or exciting remedies. Even the greatest depletion, when successful, cures as much by the *change* of *morbid* action, which it effects, as by the *reduction* of *excessive* action. Nor do emetics, cathartics, diaphoretics, &c. produce their effects by their evacuations merely, or by removing morbid matter, but by acting as powerful counter-agents. A patient is not to be stimulated into health, nor depleted into health. The quality, not the mere quantity, of morbid action, is to be changed, in the vast majority of cases.

For a general rule, as has been before remarked, *sthenic* diseases require *reduction* in the first place ; afterwards the treatment consists in the administration of a peculiar set of agents, which have a tendency to remove or *change* the remaining morbid action. On the other hand, *asthenic* diseases usually demand an effort to change the morbid action, in the *first* place ; afterwards, the main object is to afford proper *support*.

Every one knows the immediate effect of Alcohol and other stimulants, in *increasing* morbid action, and *concurring* with it, in Synocha ; but very few have accurately noticed the equally deleterious consequences of *refrigerants*, and *active* reducing emetics and cathartics, in Typhus. Indeed, the injury arising from these debilitating and irritating articles, is not always obvious, *at first view* ; in the lighter cases, especially those attended with moderate torpor, and in mild Fevers of the sub-putrid type, they sometimes counteract, for a short space of time, and thus produce *present* relief ; but their pernicious effects are usually seen, in the production of irritability, or exhaustion, in a greater or less degree, particularly at a *critical period*. Even Calomel, though the most certain agent, during the first stages of regular Fevers, in *changing* diseased action, if continued beyond the first week, or even after the semi-critical change is produced, (I am by no means speaking of chronic or local affections) is apt to *coincide* with, and increase the general debility and irritability, though not, by any means, in so great a degree as Tartar emetic.

It would be well if *Antimonials* were *prohibited* in every typhoid disease. Not, but that when administered by a careful hand, they may be *occasionally* serviceable, in clearing the alimentary canal, and thus *prepare* the system for tonics ; and that they are sometimes even successfully employed as counter-agents, in the preparatory stage of hot Typhus, of the sub-putrid type ; yet, as their alterative effects can always be accomplished by much *safer means*, by more appropriate counter-agents, they are *unnecessary*, and

from their debilitating and irritating properties, are *liable* to produce the most fatal consequences, in *coinciding* with the disease. Antimonials, Nitre, Cream of Tartar, effervescing mixtures, and the other refrigerant salts, vegetable acids, cold water, or similar articles, are *indispensable* in *Synocha*; and though of more doubtful efficacy, when cautiously employed, *may* occasionally answer, or at least do much less mischief, in the early stages of *Synochus*; (which is in most instances of the sub-putrid type) but they are always *hazardous* in the *nervous Fevers* of the present day, which are of the nervous type, and asthenic diathesis, *from the very access*; and if used for any considerable time, in *efficient doses*, are *uniformly pernicious*. Irritability of the stomach and bowels, inordinate and unmanageable *secretion of bile*, extreme anxiety about the *præcordia*, hæmorrhage, *black tongue* and teeth, *coma*, subsultus, sudden and unexpected exhaustion of the vital powers, with colligative perspiration and diarrhœa, and the whole train of symptoms, belonging to extreme, irregular, and malignant diseases, are, at any time, *liable* to supervene in those cases, which might otherwise have proved mild, from the injudicious use of these very exceptionable articles. They almost uniformly *increase typhoid heat and thirst*, and frequently produce *dryness* of skin; but where the opposite symptoms prevail, they aggravate, and concur with, the *morbid coldness* and perspiration."

Dr. Tully's part of this volume consists of three essays on Yellow fever, and a review of Dr. Miller's account of an Epidemic fever, which has prevailed for some years past in certain parts of Virginia, which may be found in Dr. Chapman's journal for November, 1822. The papers on yellow fever are preceded by a geographical and statistical account of the town of Middletown, for which our readers must be referred to the book itself. The symptoms of the disease are very accurately detailed, and the peculiarities which distinguish it from the endemic fevers incident to that region, particularly stated and compared, as well as those which he styles *pathognomonic*: by the way, it is more than doubtful whether this term as applied to any one symptom of this fever is strictly accurate: it is not one symptom, but a combination of symptoms, which alone can characterize it, and our most eminent and experienced physicians have been obliged to confess that an accurate diagnosis requires that it's most marked symptoms should be taken in connexion.



Dr. Tully observes, that this disease was in no instance marked by any inflammatory symptoms, but was closely affiliated to *Typhus gravior*, and his treatment was in perfect accordance with this opinion; he however does not mean to be understood as denying the inflammatory character of this fever; he speaks from what he saw, and allows "that diseases essentially the same do vary as regards diathesis, from difference of climate, period, and season," and he might have added many other circumstances. He discusses this question however with regard to the disease, with a *little more* ingenuity than the case requires, and finally arrives at the conclusion that yellow fever is always *more or less asthenic*; thus making it an exception to the rule just above stated. Though he wishes not to pronounce on the merits of the controversy respecting its contagious character as it appears in the cities of the middle and southern states; he unequivocally declares his conviction that it was in "some cases communicated by personal communication with the sick."

The treatment of Dr. T. was with little variation the same as that of Dr. Miner in *Typhus mitior*, varying in degree, though the same in kind; and consisted in Epispastics, Calomel, Pediluvia, Sinapisms, Stimulant diaphoretics, and Opium; and in very low cases Alkahol, Arsenic, Capsicum, Cantharides, &c.; but Calomel appears to have been the sheet-anchor, its use being merely limited by hypercartharsis or ptyalism.

The review of Dr. Miller's paper is the last article in the book. It is of a controversial nature, and therefore not properly the subject of analysis, though we may be permitted to remark, that in going over it, we noticed several assertions calculated to surprise us; take for instance the following: "In reality we have no knowledge of any unequivocally inflammatory *Epidemic*, except of small-pox or measles, that has ever prevailed to any *considerable* extent. At all events such instances are so rare on the records of medicine that we have never been able to find *one*." Quere: What was the cha-

racter of the Epidemic Catarrh which spread from Georgia to Maine, and from the Atlantic to the Mississippi in 1807 ?\* Again, "the suddenness and severity of the pain, but more especially the variations of its seat, and the readiness with which it was sometimes transferred from one part to another, never occur in *any* actively inflammatory disease except Rheumatism ; which however is an inflammation *sui generis*."

It was no part of our object in noticing this work of Drs. Miner and Tully, to controvert its doctrine, and besides if it had been, we should have changed our plan, under a persuasion that it was unnecessary : the few remarks which have escaped us naturally suggested themselves upon its perusal, without any intention on our part of forestalling the opinions of its readers ; we are fully satisfied that the precepts which it inculcates, will not materially modify the practice of any intelligent physician, before he has submitted them to a rigid scrutiny, which will appear to be the more necessary by reason of the general language in which the authors have thought proper to cloathe them.

Many persons, though they will not doubt the facts they have adduced, will not feel themselves obliged to accept the reasonings as conclusive ; because they are all explicable upon other and very different principles much more safe in practice, and more consonant to the most approved systems of pathology. The doctrine of the essential nature of fever ; the broad use made of the word diathesis ; the point which they particularly press, viz. that all the necessary medication of fever, (a term we do not like) consists in preparing the system for the supporting course ; the extensive practical use of the term passive inflammation, without offering any evidence that such a state exists ; the indefinite idea conveyed by the

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\* Vide article Atmospheric Constitution, in the 11th volume of this Journal, page 190.

Letter of Dr. Ramsay to Dr Mitchell, *ibid.* page 233.

Letter of Dr Watkins to Dr. Mitchell, volume 12, page 5.

Dr. Ricketson's History of Influenza do. page 12.

word irritation ; and the frequent necessity of its re-occurrence in all the reasonings of the book, cannot fail to arrest his attention, and challenge a close investigation. No practitioner, however humble his acquirement, and however plain his common sense, will quietly submit to the imputations which the authors of this book have, we had almost said wantonly, cast upon his professional reputation, without instituting a serious enquiry into the grounds of the various allegations of ignorance, prejudice, stupidity, and even want of integrity, which are gratuitously scattered throughout its pages ; and where that enquiry will end requires no second sight to conjecture. The work, such as it is, with all its imperfections, (and they are not few,) bears the impress of genius, and marks the authors as men far removed from the ordinary race of book-makers, who monopolize the press, tax our time and defraud us of our property by raising expectations which they know cannot be realized ; but it appears to have been their misfortune to judge their profession by a small sample, and that perhaps not the fairest specimen of the whole parcel ; to have associated for the most part with men of less intellect than themselves, disposed to acquiesce in their opinions because unable successfully to controvert them ; circumstances very liable to beget a neverweening confidence, which scarcely consists with a due respect for others.

We trust the authors will place whatever we have said to its proper account, if not, at least to any other than prejudice, petulence, or a wish to limit the circulation of their essays. We offer no apologies for what we write, where they are not required, but frankly confess that we lay no claim to that catholic kindliness of feeling which, while it manifests itself by politely commending in general terms every new publication, issuing from the press, takes no interest in any.



*Elements of Medical Jurisprudence*, by THEODORIC ROMEYN BECK, M. D. *Professor of the Institutes of Medicine, and Lecturer on Medical Jurisprudence in the College of Physicians and Surgeons, of the Western district of the State of New-York.* 2 vols, pp. 861. Albany. Websters & Skinner.

WERE it on no other score than as saving the trouble of wading through many ponderous tomes, tracts, essays, and dissertations, of physic and of law, to bring together all that is known of medical jurisprudence, we should consider Dr. Beck as a benefactor to the profession both of law and of medicine. The volumes now before us are a most triumphant proof of the industry and extensive research of the author.—Hardly any work of any eminence the most remotely bearing on the subject, has escaped his notice ; and, considering the multifarious nature of his subject, it is rather a matter of surprise that he has been able to accomplish so much.

Forensic medicine is a branch of the science of acknowledged importance ; and though it is considered as a prominent portion in a regular course of medical education, and professorships of it have been established in our universities and colleges, yet hitherto we have had no work which could exhibit a comprehensive view of the subject with a particular reference to the decisions and regulations of our own courts of justice. It must afford no small satisfaction to the friends of the science, that the desideratum has been at length so well supplied. It is not our intention to offer our readers an analysis of the contents of these volumes ; in fact, it would be a difficult task to condense or distil a work which is almost wholly composed of pure, defecated matter : we shall therefore content ourselves with a simple statement of the scope and design of the author.

In the arrangement of his matter, Dr. Beck has very judiciously avoided the trammel of strict limits or systematic divisions, which would only have increased the difficulty of managing his subject without adding to its illustration ; he has,

therefore, preferred the method of discussing distinct topics by themselves, proposing to himself in each subject the question, how far the examination of the point under consideration might come before a judicial tribunal? Having ascertained and stated this, he proceeds to notice the physiological, pathological, and chymical facts necessary to be known in the supposed case.

The first Chapter is devoted to the consideration and investigation of *Feigned diseases*—a class of cases which happily are not very prevalent among us, that is to say, disorders feigned for the purpose of avoiding military duty, although, in other countries, where standing armies are presumed to be indispensable, they are subjects of sufficient importance to claim particular attention. Such cases, however, even in our limited military system, may happen, and they at times do occur in other quarters: we find, for instance, sometimes our street mendicants counterfeiting maladies to excite the commiseration of benevolent institutions and individuals; the criminals in our state prisons and penitentiaries are also observed to feign disorders to escape the severity of their punishment, and instances have been known of individuals resorting to such impositions for the purpose of extorting exorbitant legal damages. Of the variety of cases in which maladies may be feigned, a full exposition is given, as well as the true symptoms of the real diseases.

Chapter second treats of the subject of *Disqualifying diseases*, and though nearly allied to the preceding, is interesting not only to the military physician, but in civil cases wherein it is necessary to ascertain, whether individuals are by disease or defect, disqualified from performing certain services, such for instance as that of juror, witness or military duty; and sometimes such investigations become necessary, that the humanity of our criminal laws may not be violated in subjecting felons to heavier labour or punishment than they are capable of sustaining.

In the third Chapter the subject of *Impotence and Sterility* is

discussed ; their causes in both sexes, and the regulations which have a regard thereto, among different nations : and in the fourth Chapter the *Various malformations which lead to doubt on the sexes.*

The subject of *Rape* forms the fifth Chapter. Next to the crime of murder, this is the highest offence against a civilized community, and as the decisions in cases of accusations frequently, of necessity, rest on testimony difficult to be disproved, and therefore of a character extremely liable to perversion, it is a matter of great importance that the moral evidences of the case should be contrasted with the natural appearances usually attendant upon the commission of the crime.— In treating this subject, the physical signs of virginity form the first points of consideration. Although there is some diversity of opinion respecting the constant existence of such an undoubted evidence, it seems to be most generally admitted that unless from original malformation or disease, it may have been obliterated, such a test of chastity does exist : at the same time that the loss of it would be but an equivocal evidence of unchastity, if unsupported by other circumstances : while, on the contrary, the presence of this membrane in the female preferring a charge of this sort would be a strong testimony against the accusation. The marks of defloration too, are not of that positive nature that reliance can be placed on them except in connexion with other evidences. Dr. Beck seems inclined to coincide in the opinion of many eminent medical jurists, of the impossibility of the commission of this crime, without some co-operation or will of the female, or the employment of extraordinary force.

The subject of *Pregnancy* is treated of in Chapter sixth, than which, as the author observes, “ few questions occur in legal medicine of greater importance ; on its proper decision may depend the property, the honor, or the life of the female.” When such cases become subjects of legal enquiry, the opinions of medical men are necessarily resorted to, but from the extreme difficulty in which the subject is involved, and the



dubious nature of the various appearances which pregnancy exhibits, physicians should be very cautious in forming their opinions from single or cursory examinations, neglecting other circumstances.

Chapter seventh treats of *Delivery*, its attendant signs as respects both the mother and the infant, and the necessary points to be noticed in conducting examinations. In this chapter is also embraced the curious subject of the symptoms of life in infants as enabling them to inherit, and the laws of different nations in relation to this interesting subject.

We come now to Chapter eighth, on *Infanticide*, from the pen of Dr. J. B. Beck. As this masterly performance has already been before the public in its leading views, especially as the author's inaugural in 1817, it will be unnecessary to say much respecting it. We can only offer our feeble testimony in its praise, in addition to such high authority as Dr. Smith, of London, who has stated that from a perusal of it, he entertained the idea that the American schools have outstripped us (the English nation) in their attention to forensic medicine.

In the ninth Chapter is embraced the subject of *Legitimacy*, comprising a discussion on the ordinary term of gestation, of premature delivery, of protracted delivery, and of the regulations of different nations on the subject. The author states his total disbelief in the doctrine of protracted gestation.—Of the number of cases in support of the opinion which he enumerates, “there are many that bear the impress of vice, while the most favourable are so liable to have arisen in error, that scepticism must appear unavoidable. That a limited variation may from extraordinary circumstances sometimes occur I shall allow, so far as to believe it proper that legislation should make allowances for it. The best and most accurate observers have sometimes met with cases when the period seemed to be somewhat prolonged; but I will venture to add, that the more closely they are investigated the less will the number appear. In England, and certainly in America,

cases of protracted gestation are rarely heard of. They appear to have occurred in countries where the administration of justice was arbitrary, or at least fickle and unsteady."

Chapter tenth, *Presumption of Survivorship*; Eleventh, *On Age and Identity*; and twelfth on *Mental alienation*, abound in curious particulars, and useful information on those subjects.

Chapter first of the 2d vol. is a most valuable treatise on the various topics which come under the purview of a *Coroner's jury*. The different points of enquiry proper to be instituted in cases of persons found dead are fully investigated, and directions given for obtaining in such subjects, as correct a judgment as the nature of the evidence will permit.

The next Chapter, *On the nature of Wounds on the living body* might we think have been incorporated in the preceding, as being mostly of a similar character.

The remainder of the volume, consisting of five Chapters, is wholly occupied with a very copious and elaborate discussion of the nature and symptoms of *Poisons, mineral, vegetable and animal*; and though we are rather inclined to think that this part of the subject is treated in rather too diffuse a manner, and many substances introduced, particularly of the vegetable kind, which are not likely to come under the observation of his American readers, still there is not much to be curtailed. The subject is sufficiently important to require a notice of all that has been observed upon it, and Dr. Beck's book we think may be another American work to be adopted as a manual in Europe.

Of the author's manner of treating his subject we must refer our readers for a clearer notion, to the book itself. They will certainly not be disappointed in their hopes of reaping from it much instruction and amusement. Perhaps it requires not the spirit of prophecy to predict that it will take its rank with the best productions of the kind, both in Europe and in this country. To the medical profession it must prove an invaluable text book, as containing a copious collection of facts connected with the most important enquiries in physi-

ology, and to the legal practitioner an equally valuable exposition of opinions and decisions in those cases of judicial enquiry in which the testimony of experienced physicians is indispensable. The variety of sources from which he has gathered his materials we have already noticed, and of his candor in collating testimony on both sides in some unsettled questions, our legal brethren will no doubt bear evidence; and probably they will observe with some satisfaction that in some cases Dr. B's book will not encroach upon their prerogatives in its tendency to diminish the "glorious uncertainty of the law." In such cases however, they may rest assured, that the fault does not lie with the author, but rather in the imperfect nature of our knowledge upon such subjects.

From the comparatively recent growth of this branch of the science among us, we are agreeably disappointed at finding that so much has been done in the first work professedly devoted to the subject from our press. Accustomed as we have been to look to Europe, and especially to England for our supplies of books of this kind, it is with no small satisfaction that we greet the appearance of an American work, in all respects as well executed as any thing we could import.—We hope soon to see the accomplishment of Dr. Beck's promise, with respect to his treatise on Medical Police.

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## COLLECTANEA CLINICA.

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*Cases of Rheumatism successfully treated by the exhibition of tartarized antimony, in the New-York State Prison.*

### CASE I.

H. CURRIE aged 50 years, and of phlegmatic temperament, was admitted into the hospital of the State Prison January 7th labouring under a severe attack of acute rheumatism. He



said he had been for some time past affected with wandering rheumatic pains which had become suddenly aggravated— As there was considerable excitement in the sanguiferous system with other febrile symptoms, and excruciating pain in the parts affected, he was bled to the extent of one pound, and commenced at 2 o'clock, P. M. to take at short intervals of an antimonial solution. By 5, P. M. he had taken of Tart. Antimony, gr. xxv, when he vomited moderately. The solution was continued until half past 10 o'clock. P. M. by which time he had taken in the course of eight and a half hours, xliii grains of the tartarized antimony, without having produced any evacuation, other than one turn of moderate vomiting (before noted), and it was judged prudent to discontinue the remedy for the present. At 11 o'clock the patient began to vomit and purge freely, which evacuations continued for some time, but without going to any alarming extent.

January 8th. The patient admits himself to be considerably relieved. He complains greatly of dysentery, for which he is allowed two moderate doses of nitrous ether, with benefit. At 4 o'clock, P. M. he recommenced the antimonial solution at half hour intervals, and at 10 o'clock, P. M. by which time he had taken xx grains of tart. antim. full vomiting followed by purging supervened, when the remedy was omitted.

9th. The pains greatly relieved. The pulse is now 86, but still full and strong. The antimonial solution directed to be continued, but at more distant intervals.

10th. Took in the course of yesterday and evening, of tart. antim. gr. x, without sensible evacuation. The pulse somewhat abated in frequency, and more tranquil than yesterday. Continued the antimonial solution.

11th. Took yesterday of tart. antim. gr. v, without inducing vomiting or purging. The bowels are merely regular, the pulse quite calm and soft, and the pains almost entirely removed. Continue antimonial solution at longer intervals.

12th. Took since last visit of tart. antim. gr. iv. Pulse

reduced to 60 ; the remains of his disease fast disappearing, so that it is not necessary to give him any more medicine.

On the 15th, the patient was discharged, entirely freed from his disease. The day before his discharge a slight vesicular eruption appeared on one of his legs, where, he says he had a sensation of itching and pricking for some days past.

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CASE II.

E. Cornell, aged 32 years and of the sanguine temperament, was admitted into the hospital of the State Prison, January 12, affected with rheumatism, chiefly confined to the lumbar region. The disease was of three weeks' standing, and had become so severe as to render him unable to stand erect ; he moved about slowly and with the greatest difficulty and pain. The pulse was full, hard, and frequent, accompanied with other inflammatory symptoms. At 3 o'clock P. M. he commenced taking of tart. antim. gr. j, every fifteen minutes, in solution, which slightly vomited him by 5 o'clock, P. M. and he was directed to continue it, at somewhat longer intervals, according to the state of his stomach.

13th. By 9 o'clock this morning he had taken of the tart. antim. gr. xxx, since 3 o'clock yesterday, which had produced moderate vomiting several times. Pulse reduced to 84. No evacuation by stool. Let him take of Calomel, per se gr. x. 3 o'clock, medicine has not operated. Directed of Sulph. of Soda 3j, to be given him, which had not produced any evacuation by 6 o'clock, and it was directed to be repeated.

14th. The cathartic medicines produced full purging during the last evening, after which the patient recommenced the antimonial solution, and took of tart. antim. gr. ss. every thirty minutes, which operated moderately on his bowels.—The pulse this morning is reduced to 78 and soft. The pains are greatly relieved, so that the man is enabled to stand erect without pain or difficulty. Continue the antimonial solution.

16. Has continued the tart. antim. which has operated slightly on his bowels. Says he is perfectly free from pain, and complains merely of being weak, though there are some febrile symptoms remaining. This patient continued to improve from day to day, and was discharged cured without the necessity of taking any more remedies.

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## CASE III.

J. SCHOONHOVEN, aged 21 years, of the sanguineous temperament, and full habit of body, was admitted into the hospital of the New-York State Prison, January 30, 1824, labouring under acute rheumatism, principally affecting him in the forms of lumbago and sciatica : says that he has had frequent attacks of this disease within the last five years, for which he had taken various remedies, and among them a tincture of the meadow saffron, from which he thinks he derived the most decided benefit. Pulse frequent and full, with other febrile symptoms, and great severity of pain. He was immediately bled to the extent of 3xvi, and commenced at half past three o'clock, P. M. to take of antim. tart. in solution, gr. 1½ every ten minutes.

31st. He continued to take of the antimonial solution, 'till he had taken gr. xxv, and then intermitted it. At 5 o'clock, P. M. had some vomiting and purging, which was repeated several times during the night : Pulse reduced to 100. At 10 o'clock, A. M. he resumed the antimonial medicine at intervals of half an hour.

February 1st. The antimony was regularly continued until the patient had taken gr. xxxv. which produced considerable vomiting and purging throughout the day : says that his pains are much relieved : directed to take the antimony as yesterday.

2d. He discontinued the antimony after having taken gr. xxx, which vomited him only once, and produced one stool



during the day, and two in the night. Pulse reduced to 80, and pains abated; directed at 10 o'clock, A. M. to resume the tart. antim. gr.  $1\frac{1}{2}$  every fifteen minutes.

3d. Suspended the medicine after taking gr. xxx, which produced four or five evacuations by stool, without vomiting; pulse as yesterday: resumed the antimony as before.

4th. Stopped the medicine after taking gr. xxx, which produced several evacuations by stool during the day and night: pulse as yesterday, but the patient admits his rheumatism to be much relieved: at 9 o'clock, A. M. he resumed the antimony as before.

5th. The patient had taken gr. xx. of tart. antim. in the course of yesterday without producing any evacuation by 7 o'clock, P. M. when he resumed the medicine, taking gr. iii. every ten minutes, until he had taken gr. lxxx, from 7 o'clock till half past 11 P. M. when he vomited three times, and had four copious stools. No antimony was directed to be taken this day.

6th. Pulse 82. Commenced taking of tart. antim. gr. iii. every fifteen minutes.

7th. Took of tart. antim. yesterday gr. xxxvi, which produced several alvine evacuations and one turn of vomiting. Pulse 72. Directed at 11 o'clock, A. M. to resume the use of the antimony, as yesterday.

8th. Took yesterday by 2 P. M. gr. xxxvi, of antimony without producing any evacuation. No antimony directed to be taken this day. Let him have in the afternoon a dose of the sulph. sod. and apply a blister over the hip joint, to which he chiefly refers his pain.

9th. Pulse 62. Cathartic operated well. Let him resume the use of the antimony as before.

10th. From half past 12 o'clock yesterday to half past 3, P. M. took of antimony gr. xxxvi, which produced a considerable vomiting and copious purging in the afternoon. The patient was now so much relieved, and he had taken such an immense quantity of antimony in the course of the eleven days

past, viz. ccclviii grains in nine days (two days intervening in which it was wholly omitted,) that it was judged proper to discontinue the medicine, and trust his perfect recovery to diet and regimen. He was sufficiently well in a few days to leave the hospital, and return to his work.

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## CASE IV.

January 16th, 1824. Charles Gerard aged 32 years, of the melancholic temperament, has been afflicted with paralytic rheumatism, of the inferior extremities, for four or five months past, accompanied with depression of spirits. It is difficult and fatiguing for him to walk twenty yards supported with a stick; his steps are very short and when either foot is raised from the floor to advance, the leg is seized with a trembling which continues until the foot is set down again. He occasionally complains of pains in other parts, but they are mostly confined to the thighs, legs, and ankles. It may be proper to remark, that this man drank to excess until about four years ago, (up to the time of his conviction,) when he was deprived of the use of ardent spirits in every form. The principal medicine used in this case, has been opium, in various forms, as the tincture, pill, and latterly Dover's powder; merely alleviating the pains, but without any permanent benefit to the disease: he has also tried the vol. tinct. guaiac. without relief. He has been electrified four or five times the past week, receiving between 30 and 40 slight shocks at a time, apparently with some benefit, but he refused to receive any more. This day (16th Jan.) at half past 4 o'clock, P. M. an issue was inserted in his back, on one side of the lumbar vertebræ, and at 5 o'clock he commenced the use of tart. antim. taking one grain every fifteen minutes in a table spoonful of water coloured with a few drops of the sps. lavend. comp. At 10 o'clock, P. M. medicine had made no impression; directed it to be given every ten minutes; 11 o'clock, no gastric

uneasiness : directed two table spoonfuls every ten minutes. At half past 12 o'clock at night, has taken xlv grains tart. antim. and neither vomiting, purging, nor sickness of stomach, but complains of pain in the stomach and bowels, accompanied with hiccough ; gave him 3ij sulph. sodæ, with a table spoonful of the above solution of tart. antim. in it, and directed the solution to be continued as last ordered ; in fifteen minutes after taking the neutral salts he vomited freely, and had three copious stools during the night. Took sixteen grains more of tart. antim. this night.

17th. Pulse 84, and small. Half past 8 o'clock, A. M. directed to continue solution ; half past 4 o'clock, P. M. the solution was suspended, having taken since morning xlii grains, which have produced two or three stools, but no vomiting. 6 o'clock, P. M. directed solution to be resumed, and taken as before. At half past 12 o'clock at night, solution was suspended, having taken xl grains since the evening : no vomiting or purging produced ; half an hour afterwards, feeling sick at the stomach, he tickled the fauces with his finger, which occasioned some vomiting.

18th. Pulse 50, and feeble ; tongue furred. 10 o'clock, A. M. resumed the use of the solution two grains tart. antim. every ten minutes, as before. 3 o'clock, P. M. pulse 70. 9 o'clock, P. M. stopped solution, having taken lx grains this day ;—no effect produced ; about half an hour afterwards he vomited but not freely.

19th. Pulse 74, less feeble than yesterday, tongue slightly furred : one costive stool this morning, the first since the night of the 17th. 12 o'clock, at noon, resumed solution, to be taken as usual. 6 o'clock, P. M. vomited freely : stopped taking the solution : xl grains taken this day. 7 o'clock, P. M. gave 3ij sulph. sodæ, as the bowels still continued costive, which vomited him in ten minutes, but did not procure an evacuation from the bowels. No perspiration produced during the use of the tart. antim.

20th Pulse 72, more natural—tongue nearly clean. 11



o'clock, A. M. one stool rather free ; the first in twenty-four hours. Pains much relieved : walks better.

21st. Continues to improve—his general appearance is much more lively than it was a week ago. Advised him to use the flesh brush frequently to his lower extremities, and to walk about as much as he conveniently could.

23d. The patient convalescent.

242 grains tart. antim. taken in this case.

*Remarks.* The above cases are given as examples illustrating the Italian doctrine of contra-stimulus. It is truly surprising to observe what quantities of a very active medicine these patients were enabled to take, not only without injury, but with the most decided benefit, even without, in some instances, producing any evacuant efforts, and in others, evacuations by no means proportioned to the quantity exhibited. It must be confessed that if the practice were generally adopted, it would not be unattended by hazard ; as too much is left to the discretion of the practitioner—to the opinion he may form of the intensity of the morbid action, or the *tolerance* of the patient, as the Italian physicians express it, for remedial agents : and if his judgment was mistaken in this respect, his medicines might prove highly prejudicial, and in some instances, even poisonous and fatal. The effects of the medicine in the above cases were narrowly watched, a medical attendant, during their exhibition, being almost constantly present, to discontinue its use, or obviate its effects, should any untoward symptoms arise. Nothing occurred in either of them to create a moment's alarm, or to lead to apprehend any ill effects from its administration. The state of the perspiratory function is not noticed, because in no instance was diaphoresis apparent to any remarkable extent.

*Acupuncturation in Tetanic Trismus.* By F. FINCH, of Greenwich.

In the course of the last month, a highly respectable neighbouring practitioner, (Mr. Bromley, of Deptford, informed me that he was attending a patient who had fallen from a considerable height, and had received several extensive lacerated wounds on various parts of the body and scalp, and that he despaired of his recovery, in consequence of trismus, &c. having taken place, and destroyed all power of deglutition. I intimated to Mr. Bromley that, if the case were mine, I should try the effect of acupuncturation, and was permitted to accompany him to the patient's house. The patient was in a most distressing situation, with a pulse of 130; the jaw completely locked; and, from the extreme rigidity of the muscles about the throat, he was incapable of swallowing the smallest quantity of fluid. Having obtained permission to employ the needles, I introduced one into the masseter muscle, as well as the sterno-cleido-mastoideus, platysma myoides, and all the muscles of the neck and throat of that side, were instantaneously relieved from their spasmodic contraction. Another needle was then introduced into the left masseter, and relief (though not to the same extent) was immediately afforded. Such was the effect of the operation, that before we left the room the patient took a large dose of tinct. opii and a cup of chocolate, although he had been unable to swallow any thing for some considerable time before. He is now perfectly recovered.

[*London Medical Journal.*

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*Neuralgia, or Tic Douloureux, treated with Carbonate of Iron.*

By DR. CRAWFORD, of Bath.

Dr. Crawford, of Bath, has communicated the particulars of two cases of neuralgia treated with the remedy in question—one in his own practice, the other in that of Dr. Davis, of Bath. The first case was that of a lady who became

affected in the left side of her face at the age of 69 years. The disease was moderate at first, and the intervals between the paroxysms of considerable extent; but after some time the disease became greatly exasperated, and the cessations from suffering of short duration. The complaint was subdued by the arsenical solution, and the patient remained free from suffering for two years. Then a slight relapse, and again relief for four years by the same remedy. At the end of this period the enemy renewed his attacks, but arsenic no longer availed. Dr. Crawford then commenced with carbonate of iron in scruple doses three times a day, gradually increasing the dose to a drachm. In three weeks from the commencement of this plan of treatment the disease gave way, and has not yet returned.

Dr. Davis' patient was also a female, 65 years of age, affected with the diseases in the right side of the face. She was cured by the carbonate of iron in a fortnight—two scruples night and morning.

Mr. Thomson of Sloane-street, has communicated to Mr. Hutchinson the particulars of some cases which are in favour of the remedy. We sincerely hope it may retain the reputation it has already acquired.

[*Medico Chirurgical Review.*]

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## INTELLIGENCE.

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*Some account of Small-pox and Varioloid Disease, as they occurred in Philadelphia, during the last Autumn and Winter, in a letter from Dr. EMLÉN to Dr. CHEESMAN, of this city.*

*Philadelphia, 1st mo (Jan.) 3d, 1824.*

DEAR SIR,—Were I to attempt to give you a detailed account of the epidemic, which has prevailed in this city and its suburbs for some months past, I should extend this communication much beyond the limits of a letter. Indeed, the



appearance of a similar disease in Great Britain has given occasion to the publication of more than one book on the subject. As far as I have been enabled to learn the opinions of the medical men here, on the nature and character of the present epidemic, I think they are almost precisely in accordance with those given by Dr. Thompson in his history of the disease, as it prevailed in and about Edinburgh; and by Cross, as it prevailed in Norwich, England. I believe I may also venture to say, that the speculative opinions of Dr. Thompson upon the common origin of small-pox and chicken-pox, have gained a great many proselytes in this place, since the prevalence of the present epidemic. The reason given by him to account for the more frequent production of the *modified small-pox* or varioloid disease, as he terms it, amongst those who had been protected by natural, or inoculated small-pox, or by vaccination, than during the small-pox epidemics of former periods, appears to me to be the only plausible one which has been suggested. The small-pox has been here, amongst the unprotected, a most malignant, loathsome, and fatal disease: a very large proportion of the cases having terminated unfavourably. I have not heard of any death from the varioloid disease after vaccination. There have been some few deaths from secondary small-pox; but, I believe, the most of them occurred in very intemperate subjects, who would probably have died from an attack of any other acute disease of ordinary severity, for such subjects, we know, do bear disease but badly. It is, however, the experience of most of our practitioners, that the disease has been generally worse after the small-pox than the cow-pock; but the cases of the former kind have not been so numerous here, as those of the latter. The alarm amongst the citizens was, at the first appearance of the epidemic, very great, and doctors and cow-pock received not a little abuse; but since they have had time to witness the wonderful influence of the vaccine disease in rendering the varioloid, or modified small-pox, so light and trifling; and as

at the same time cases were occurring frequently in persons who had had small-pox naturally as well as from inoculation, the consternation is fast subsiding, as it did abroad in the same way, and the vaccine now supports its former reputation. In a very great majority of instances, the disease, in the vaccinated has been a very mild chicken-pox, or what would, at any other time, have been so called, and often no medical attendant required. In many instances there have been chilliness, headach, nausea, and slight fever, with an efflorescence appearing for a short time on the skin, somewhat resembling measles, though more diffused, and yet not so much as scarlatina : indeed, the appearances on the skin have varied, I may say, in almost every case I have seen, from the genuine pustules of the small-pox, (but not followed by secondary fever in any instance,) down to the varioloid fever, if we may so term it, without being followed by any eruption at all. The varioloid contagion acted in this latter way on myself, and on a number of my medical brethren : we had a few days indisposition and no eruption, and we have repeatedly seen the same thing occur among children, in families where the disease prevailed. There has also been a number of solitary cases of the disease in families comprising a number of children. One of the first and worst cases I have seen, was in a large family containing four or five other children who had been vaccinated : it is now five weeks since, and no other has been the least indisposed. I saw a case a few weeks since, where the whole surface of the body was covered with large welts, resembling urticaria, and with very few pustules. This boy was more severely affected than his brother, who previously sickened with the disease and in whom the eruption was general. Another brother had considerable eruption over him, but had never complained at all of being unwell, and continued to amuse himself at play throughout the disease.

Physicians generally have not advised re-vaccination, except where the first was doubtful. In one family near me,

where I had a case of small pox which terminated fatally, the two youngest children, before unprotected, were vaccinated. They both continued exposed to the contagion of the small-pox, but neither of them had the slightest indisposition, nor any eruption. Four other older children of the same family had the varioloid disease, but neither of them was ill; and the oldest, though equally sick with the rest, had no eruption, and about ten days after her first attack, had a second, precisely similar and without eruption.

With assurances of regard, &c.

S. EMLEN, Jr.

P. S. In a second communication from the same gentleman, dated Feb. 20, it is observed, "that the small-pox is still adding to the bills of mortality, of Philadelphia, from twenty to thirty a week; but is chiefly confined to Southwark and the Northern Liberties, among the poor, many of whom obstinately refuse the protection of vaccination, gratuitously offered to them at every hour."

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FOR THE MEDICAL REPOSITORY.

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31st of 1st mo. 1824.

*Remarks on the Varioloides, or Varioloid species of Small pox.*

*By Dr. CORNELIUS C. BLATCHLY, of New-York.*

WITH the matter of varioloidal small-pox I have inoculated nearly a dozen persons, some of whom had previously had the kine pock; some the small-pox, and two who had had neither disease. The two last were inoculated and vaccinated at the same time, and had both diseases at once; both sickened with synochal fever on the eighth and ninth days; each took a cathartic and emetic on the 9th and 10th, and on the 11th broke out with a few pustules.

Seven of my patients were inoculated with the varioloid,



after having had the kine-pock. The inoculated parts appeared to have certainly taken for about a week ; but after that time they dried up without affecting the general system, two excepted, who sickened on the 7th and 8th days, one of whom had a general rash with a few pustules.

Some were inoculated after having had the small-pox, without affecting any thing more than the part inoculated.

Having attended a number of persons with the varioloidal small-pox, I have found that in three instances three others took this complaint : two of whom belonged to another family in which I did not attend : yet at the same time many who had had the kine-pock and small-pox did not take the varioloides, though so exposed to it, that if they had been susceptible of receiving it, they could not have escaped. The same circumstance I find has been experienced by other medical practitioners.

Why were they not susceptible of the varioloides, if this is a new kind of small-pox that attacks those who have had the vaccinia or the variola ? Let experience and facts answer. Only those who have not had the genuine kine-pock, or who have not had the genuine small-pox, can be affected by the varioloidal small-pox. Hence, I have been induced to believe, that the system may be affected partially, and with an ineffectual degree of vaccinia and variola. As to the first, it has been proven satisfactorily ; and as to the small-pox we might select sufficient testimonies, of persons being twice affected with the disease. Dr. Benjamin Rush gives us an account of many such cases in the 3d volume of Dr. Cox's Medical Museum. The late Dr. Van Beuren, near Scraalenberg, inoculated many persons about the period of the revolutionary war with the small-pox, who were all susceptible of a second attack of this disease ; and many had it severely the second time. This was communicated to me by one who was greatly pitted by the second attack : I have seen many others who have had it twice. A few days ago, I was informed by a female patient, that she and her sister were inoculated at the

same time with matter from the same person : and that one was insusceptible of small-pox, but the other had it twice, and the last time severely; in the course of two or three weeks after the first eruption.

How are such facts to be solved ? As the virus of the vaccine pustule is rendered partially effectual by having been taken too late, or kept too long, or counteracted by certain eruptions ; so it appears to be in the small-pox, for a physician in one of the southern States, has related in one of the numbers of this Journal, that by keeping the virus of small-pox two or three years, he discovered that several hundred of his patients were only affected with a spurious eruption of small-pox from this degenerated virus. No doubt Dr. Van Beuren and others, have been thus deceived by virus kept too long, or taken too late, as in kine-pock.

Dr. Waterhouse had much trouble to correct spurious vaccinia in New-England, derived from taking the virus too late in the disease ; i. e. after the vaccine secretion was ceasing, and a more natural pus was secreted. Thus, those instances of persons vaccinated and inoculated too late in small-pox or cow-pock, may, as in cases I have been made acquainted with, produce both the genuine and partial kine-pock or small-pox. Every effect has its cause. The cause of the virus of the vaccine or variolous pox, I think, must be a *peculiar* diseased action and secretion from vessels in the part affected. If therefore, the diseased action producing the virus is impaired, or altered by eruptions ; or if the virus has been partly changed by long keeping, in such cases, we may perceive why the virus is only partially efficacious, producing only a spurious kind of cow-pock or small-pox, and not the genuine disorder intended. When the system is partially and not completely secured, and is again attacked with small-pox, this latter disease will appear in the form of *varioloides* ; and the pustules will turn sooner than in small-pox on other persons. If this is not a correct explanation, how can we explain the reason why the varioloidal disease resembles the small-pox, and not

itself, in all subjects who have had neither the vaccine nor variolous disorder in a spurious or partial manner?—Or explain why it does not attack all who have had the genuine kine-pock, or genuine small-pox, whenever exposed to its inoculated virus, or virulent effluvia? I hope the truth of these things will be experimentally examined by other practitioners of medicine; and the results reported to the Medical Society of this City. My nephew, Dr. E. S. Blatchly has been induced, by his experience in varioloidal small-pox, to coincide fully in the preceding statement; and hopes with me, that physicians will be very cautious and observant about the proper time of procuring the variolous, as well as the vaccine virus, for inoculating: and discover the diagnostic difference between the spurious and genuine appearances of small-pox. For we believe fully, that virus taken too late, kept too long, or counteracted by other attendant eruptions, &c. in the system, may be causes productive of spurious or partial small-pox, as well as of spurious and partial cow-pock. The great number of varioloid cases occurring after vaccination performed by ignorant or careless persons, should be a warning, and excite to great circumspection in vaccination.

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*Remarks of Editor on Varioloid Disease.*

WE fully accord in opinion with the writers of the above articles, that the disease, which has been prevalent in this city and in Philadelphia, for some months past, and has been distinguished by the term varioloid, is produced by small-pox poison operating on persons who had previously been affected with small-pox, or the vaccinia, and hence producing a modified disease from the system being still, in a greater or less degree, under the protecting influence obtained from having had the one or the other of these affections. There is no better foundation to deny the disease to be of this character merely because the person has had small-pox, than to



deny a disease, which exhibits all the characters of small-pox, to be really such, because the patient had formerly been affected with the disease, or been protected by a genuine vaccine pustule ; instances of both these occurrences are quite familiar in the records of medicine, and are quite as enigmatical as this newly-observed phenomenon—perhaps even not admitting of as plain and satisfactory a solution. For our part, we can easily conceive it probable, that the human constitution, in a long course of years, and from a variety of causes should become changed, and have its immunities from particular diseases modified to a greater or less degree, as well as totally destroyed. Is it inexplicable then, that when a small-pox epidemic prevails, and its specific poison, as frequently happens in such epidemics, seems to be of greater intensity and peculiar malignancy from the generally aggravated character of the disease, and the occurrence of a larger proportion than in ordinary times of second attacks, and of infection after vaccine protection—Is it inexplicable, we say, under such circumstances, that, of a vast number of persons exposed to this poison of all temperaments, habits, and different susceptibilities to disease, less than one in fifty should suffer from the controlling atmospherical constitution and prevailing malady !

That the disease is of the character we have assigned it, is, we think proved by the following facts.

1st. That the disease presents no specific and distinctive character : hardly any two cases resembling. Some cases approach in appearance to chicken-pox, water-pock, measles, scarlatina or nettle-rash, &c. ; some exhibit fever without any eruption, others again are pustular ; more nearly resembling small-pox. We saw one case in which the disease was varioloid for the first two or three days of the eruption, and afterward presented all the appearances of a well-marked small-pox ; the disease in its progress having overcome the remaining protecting influence derived from the vaccine disease.

2d. That only those persons are affected with the disease

who had previously been rendered unsuceptible of having genuine small-pox from having had small-pox, or the vaccinia. We have met with only one instance where the person asserted that he had never had either disease ; but from negligence the body of the patient was not examined to discover the scar of an inoculation, and of course nothing positive can be inferred from the case, for under similar circumstances, as far as we have been enabled to learn, other practitioners have invariably succeeded in finding the evidence of a former disease.

3d. In very many cases the disease has been distinctly traced to a small-pox infection.

4th. The matter of a varioloid pustule has produced genuine small-pox in the unprotected.

5th. The matter of small-pox and the vaccine virus will each of them, on being introduced into the systems of persons protected by having had either disease, produce, in some instances, their respective diseases modified.

6th. Violent inflammation supervening on an inoculated small pox or vaccine pustule is very liable to alter the character of the specific disease, and thus prevent the system from obtaining the accustomed exemption from a second attack.

Finally : The facts collected by Dr. Thompson, during the small-pox epidemic, in and about Edinburgh, in the year 1819, seem to prove that even the chicken-pox is only a modified small-pox.

These remarks might be extended to a much greater length by adducing collateral arguments ; but we rest here for the present, in the expectation of resuming the subject on learning the results of the enquiry lately instituted by the Medical Society of this city, into the nature and character of the epidemic as it has prevailed here during the last winter.

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*On Sublingual Pustules in Hydrophobia.* By M. MAGISTEL.

We mentioned, in our former series, the communication

of Marochetti, of Moscow, respecting the sublingual pustules observed by him in hydrophobia, and also the failure of M. M. Magendie and West, in discovering any pustules in a case under the care of the latter. M. Magistel, of Saintes, it would appear, has been more successful than Mr. West. Several individuals of both sexes, and some sheep, having been bitten by a rabid dog, M. Magistel was sent by the administrative authorities, and he cauterized the wounds forty-eight hours after the accident. He carefully watched for the appearance of the pustules mentioned by M. Marochetti; and in several subjects confided to his care, he observed pustules arise, unknown to the patients, without any precursory symptoms, and without occasioning pain, or cramping the movements of the tongue. Some of these pustules appeared on the sixth day, others subsequently, and the last on the thirty-second day. The cauterization of these was soon followed by their perfect cicatrization, no traces remaining of them, and the cauterized parts being in the best possible condition. The *decoctum genistæ* was perseveringly administered to all those who were bitten, and was used for washing the wounds, which unfortunately had not been cauterized until forty-eight hours after the accident, except incompletely, by the nitric acid, at the expiration of more than forty-five hours. Of ten bitten, whom M. Magistel attended, many of whom had received numerous and deep wounds, five died with all the symptoms of the most confirmed hydrophobia, in spite of the uninterrupted use of the *decoctum genistæ*, and the cauterization of the sublingual pustules.

[Anderson's Quarterly Journal.

The preceding facts are farther confirmed by the following: M. Villermé has communicated to the Royal Academy of Medicine the case of a female, whose upper lip was torn by a mad dog. The wound was cauterized at the end of thirteen hours. On the eighth day, a transparent pustule was seen under the left side of the tongue, of the size of a len-



til, similar to the pustules observed by M. Magistel under the same circumstances. On the following day this vesicle had disappeared, but was replaced by another, which only lasted twenty-four hours. On the tenth and eleventh days, several other pustules showed themselves; but after that period no others were observed. It is added, that three weeks have elapsed since the bite, but as yet the woman has not showed any signs of hydrophobia. *Ibid.*

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*Taliacotian Operation.* By Mr. TRAVERS, of St. Thomas' Hospital.

This operation was performed about a month ago, upon a man aged 34 years, who had lost his nose within the last year from taking large quantities of mercury. Mr. Travers first removed the diseased parts, and pared the edges of the old nose, where it was intended to join the new one. The operator, with a pen and ink, sketched the outline of a nose upon the skin upon the patient's forehead, which he next proceeded to separate with his knife (in the lines he had drawn) from the surrounding parts, leaving, however, the piece at the bottom of the flap, between the eye-brows, undivided.

The piece of skin thus cut out, was *twisted* round, and laid over the site of the old nose, so as to bring the inner *raw* surface in contact with it. Mr. Travers now exercised his ingenuity in modelling with this loose piece of integument the best nose he could, which was confined to the parts adjacent, by five stitches, and some strips of sticking plaster. Two small rolls of lint were put into the new nose to support its convexity, and *to form the nostrils*; and a compress was put on the upper part, where the integument was twisted. The place in the forehead whence the new nose had been taken, was dressed with simple ointment, with sticking plaster, and left to nature to be filled up. Notwithstanding

the operation was exceedingly well performed, some fears are at present entertained of its success, as one half of the new nose has lost its vitality; should it be ultimately necessary to make a new side to it, it is intended to cut it from the neighbouring cheek. *Ibid.*

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*On Tar as counteracting Salivation. By Dr. KRUGER-HAVSEN, of Gostrow.*

This author has given an account of a man who, during a state of excessive salivation, attended with hæmorrhage from the gums, had employed the usual astringent gargles without benefit; who afterwards covered his tongue and inside of his mouth and fauces with tar, by means of a brush. He soon afterwards recovered, without any other remedy. Dr. K. has since employed the same means in several cases, with the effect of quickly removing this disagreeable consequence of medical treatment, without any inconvenience resulting from this new method. *Ibid.*

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*On Diabetes Mellitus. By Dr. HEINEKEN, of Madeira.*

The patient, in the case given by Dr. Heineken, was passing eight or ten quarts of urine daily, of a saccharine quality, and had the usual symptoms of diabetes. The following pills were ordered:—

℞ pulv. scammon. 3j.  
 pulv. opii. 3j.  
 hydr. submur. gr. v.  
 ant. tart. gr. ij.

To be made into twelve pills to be taken three times a day.

A warm bath every night—the chest, arms, and abdomen, to be rubbed well with sweet oil every morning. The food to be entirely animal. This treatment, with little variation, was continued from the 3d of June to the 17th of July, when it was noted that the patient perspires freely—that the urine is healthy—that the quantity is about three quarts daily. A nearly similar mode of treatment, however was,

continued till the 8th of October, when he was considered as cured. The quantity of solid opium taken during the treatment was about six hundred grains ; and during eight days of that time, he took fifteen grains daily. *Ibid.*

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*New Combination of Antimony and Mercury.* By DR. MICCOLI.

With a view of giving more energy to the action of mercury on the animal economy, the author conceived the idea of mixing with an ointment, made of an ounce of mercury and two drachms of lard, five scruples of the pulvis antimonalis, finely powdered. This ointment does not produce salivation, and is extolled by Dr. MICCOLI. as a remedy in a vast variety of diseases, whether from syphilis or not. and, amongst others, in hydrophobia. Mercury, killed by the same powder, and administered in doses of 10 or 12 grains, has a similar effect, yet not so secure from salivation. By substituting the oil of the seeds of the datura stramonium for the lard, used in the ointment, and a proper quantity of wax, a topical application is procured, which is also highly praised by our author. *Ibid.*

Those remedies may deserve a trial.

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*Amaurosis.*

Doctors Gaudiet and Delaunay have succeeded in removing amaurosis by the application of ammoniacal ointment to the sinciput. The scalp, to which the application is to be made, must be previously shaved, and the ointment applied sufficiently strong to produce vesication and subsequent ulceration. The patient can bear its application but for a few minutes. after which it is to be removed and some mild ointment applied. The ammoniacal ointment may be re-applied a day or two after, if judged necessary.

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*On Leeches.* By DR. REES PRICE.

Leeches should not be much handled prior to their application. If the weather be cold they are liable to become



torpid, and should be warmed by breathing on them. Leeches may be applied by means of a wine or cupping glass. It is useful, in either case, to put a piece of stiff paper to the bottom of the glass, to which they are otherwise apt to retire; or, if they are required on a particular spot, a small glass tube, four or five inches long, and just large enough to admit the body of the leech, may be employed. If the leech remains torpid during the process of sangui-suction, a drop of cold water sprinkled on it will arouse it again into action. The best method of suppressing hæmorrhage, which sometimes succeeds to their application, and is occasionally very troublesome, when all the simple means, such as felt, starch, puff-ball, &c. have failed, are to apply the spirits of turpentine, or the muriated tincture of iron; or, in failure of these, to insert a piece of lunar caustic (the point being scraped very fine), into the puncture; or, lastly, a weak solution of tartarized antimony has lately been recommended as very efficacious. Dr. Price says, that, in order to preserve the leeches, they should be suffered to retain the blood, and merely be thrown into a jar of fresh water. In the course of a month or two, they will become firm and healthy, and able to perform their functions again; but, if the time cannot be spared for their recovery, he prefers what is called *stripping them*, to making them disgorge the blood by means of salt. It seems that if the blood is carefully squeezed from the leech, it is capable of resuming its functions immediately.”

*Ibid.*

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INTERESTING FOREIGN PUBLICATION.

*Formulaire pour la preparation et l'emploi de plusieurs nouveaux medicaments, &c. by F. MAGENDIE, of the institute of France, &c.*

This learned and laborious physician and physiologist in this small volume gives an account of all the prepared che-

mical extracts from vegetable and other substances, which have been added to the materia medica within the last ten or twelve years, by himself and other industrious chymists of his nation : such as the resin of the *Nux vomica*, and the Strychnine, from the genus *Strychnos* :

The *Morphine*, and salts of Morphine from Opium : and an alkali from the same called *Narcotine* :

The *Emetine*, and numerous combinations of it from the *Ipecacuanha* :

The alkalies of Cinchonine, and Quinine. and their various combinations, from different kinds of the Peruvian bark :

The *Prussic Acid*, or Hydro Cyanique ; from the prussiate of mercury.

The *Solanine*, from the genus *Solanum* :

The *Delphine*, from the *Delphinium Staphysagria* :

The *Iode*, from the *Varec* :

The *Lupuline*, from the *Humulus Lupulus* :

The *Brucine*, from the *Brucea Antidysenterica* : &c.

These are again made up into various preparations, and are well ascertained to possess important medical virtues.

We will offer a few remarks on the *Sulphate of Quinine*, which is perhaps the most useful in the catalogue, and has lately attracted a large share of the attention of our physicians.

Chemistry has put us in possession of the means of judging of the comparative strength of Peruvian Barks, and the causes of their differences in this respect. The three known species, the pale, *Cinchona Condaminia*, the yellow, *Cordifolia* ; and the red, *oblongifolia* ; all contain two alkalies of different characters, which have been designated by the names of *Cinchonine*, and *Quinine*, with only this difference, that the pale bark gives more of the *Cinchonine*, the yellow, most of the *Quinine*, and the red, is enriched with both alkaline principles in a greater proportion than either. We are not told which of them is supposed to be the most powerfully re-

medial. It appears however, that the Quinine is most easily obtained from the yellow bark, and as it has been employed with success, we will, for the use of our readers, relate a process for obtaining it, which we suppose is the easiest method by which it can be converted into the salt of sulphate of *Quinine*.

A quantity of pulverised yellow bark having been divested by boiling alcohol of all its bitterness, is distilled on a sand-bath to perfect dryness, and the alcoholic extract is to be mixed with half its quantity of boiling water, strongly acidulated by the Hydrochloric acid ; as much calcined magnesia is afterwards added and stirred up in the liquor, because necessary to fix the coloured extract, which can be done in a few minutes of ebullition. When cool the magnesian precipitate is dried in a stove, and this again is washed off several times by boiling alcohol to take up the precious extract, which is left to cool, and immediately the Quinine chrystalizes. But to obtain the Sulphate of Quinine it is sufficient to treat the first extract by sulphuric acid, in the proportion of six or eight drachms to a pint ; to precipitate the solution by quick-lime : this again washed and extracted by alcohol at 156° Far. gives out by distillation a brown viscous matter, which by cooling becomes brittle, and if again treated by sulphuric, acidulated water, accomplishes the chrystallization of pure *Sulphate of Quinine*.

The sulphate of Quinine is known to be a very effectual remedy for simple, remittent fevers ; and by its tonic power has overcome many asthenic diseases, such as Chorea St. Viti, Tic douloureux and others. It is administered in the quantity of from one to ten grains, dissolved in a simple mucilage, and in small draughts every 24 hours.

We remark with pleasure that Dr. Mc Niven, professor of Chemistry in the College of Physicians and Surgeons, has successfully prepared sulphate of Quinine ; we hope therefore that it will not long continue to be sold at such an exorbitant price.